

THE ARMY COMBAT FORCES JOURNAL

AUGUST 1954

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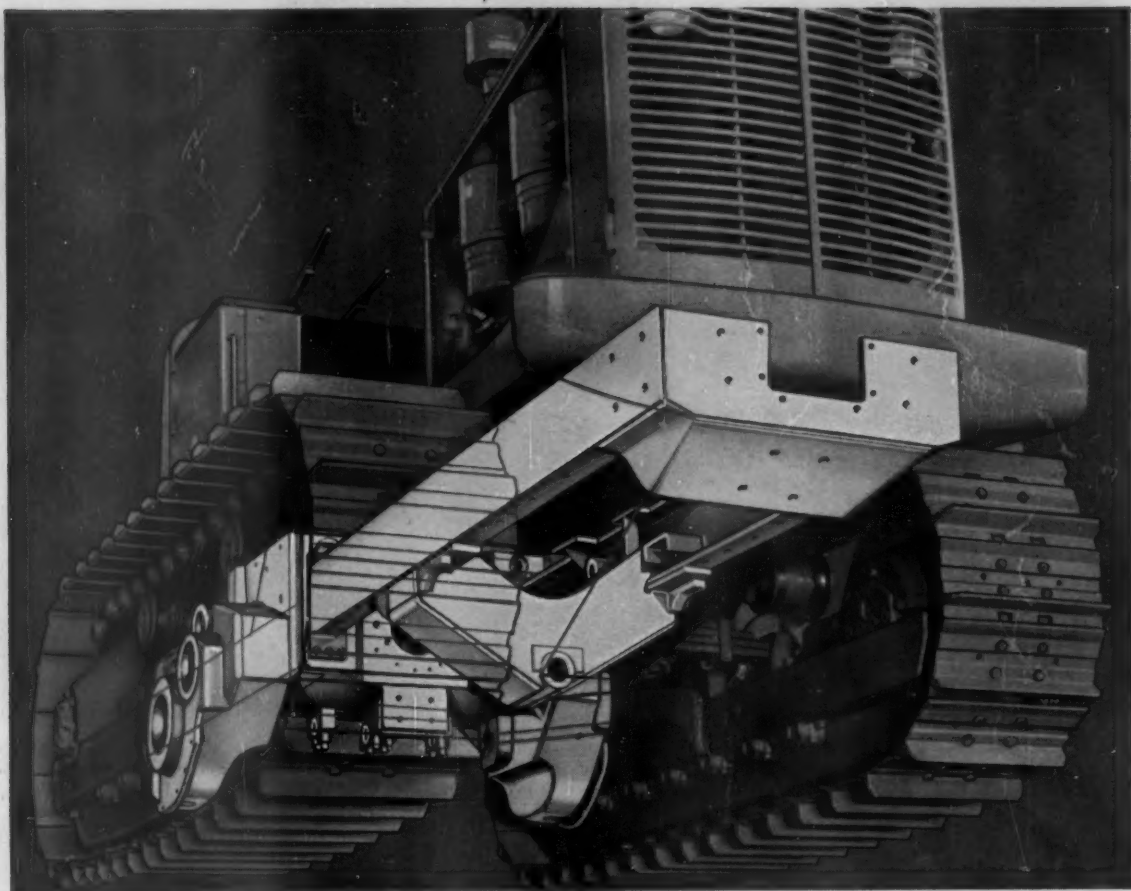
ON behalf of your fellow soldiers, I extend congratulations to the members of the Artillery on the occasion of the 179th anniversary of the establishment of your arm as a basic element of the United States Army.

AS the only part of the Army with an unbroken record of active service from the Revolution to the present, the Artillery may justly take pride in a long and honorable tradition. Its gallant actions against enemies on ground, on sea, and in air are brilliant parts of the splendid history of the United States Army.

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M. B. RIDGWAY
General, United States Army
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REPLACES BOATS—Newfoundland fishing areas are now patrolled by helicopter. The Fisheries Department of Canada operates this Sikorsky S-55, leased from Okanagan

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PIONEERING AIRLINE—Mohawk Airlines has added a Sikorsky S-55 to pioneer scheduled helicopter passenger service on part of its certificated routes. It is the second scheduled American passenger airline to use Sikorskys. Large, twin-engine helicopters eventually may be used by the airline to replace some of its fixed-wing equipment.



COPTERS ON THE MOVE—First helicopter of the Army's 328th Helicopter Transportation Company comes aboard a Navy Carrier bound for Germany. The Company is the first such Army helicopter unit sent to Europe. Equipped with 21 Sikorsky H-19s, its mission includes medical evacuation, air supply and cargo or troop movement.



WINGS OF MERCY—A Sikorsky helicopter, with rotors whirling, is shown in battle-torn Dien Bien Phu receiving French soldiers wounded in the heroic defense of the Indo-China stronghold. A stretcher bearer (right), rushes off for another casualty to be evacuated to a military hospital at Hanoi. The Sikorsky S-55 helicopter flew mercy missions in the thick of the Indo-China battle.



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THE ARMY COMBAT FORCES JOURNAL

Vol. 5, No. 1

August 1954

EDITORIAL POLICY

The **Army Combat Forces Journal** is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army.

The **Journal** strives to

- ¶ Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.
- ¶ Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.
- ¶ Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.
- ¶ Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.
- ¶ Advance the status of the soldier's profession.

(Adopted by the Executive Council of the Association of the U. S. Army, 21 June 1954)

Association's Journal

Seven new members of the Executive Council were elected to office at the Sixteenth regular (quarterly) meeting of the Executive Council on 21 June. They are Maj.Gen. Earl S. Gruver (OrdC), Maj.Gen. James M. Gavin (Inf), Brig.Gen. K. F. Hertford (CE), Col. W. B. Bunker (TC), Lt.Col. Barry Ryan, USAR (Inf), Capt. B. G. Schneckloth (Inf), and Capt. S. W. Sacra, USAR (Armor). Generals Abendroth and Stewart and Colonels McCarthy and Thomson were reelected.

The Association owes a deep bow to the officers who are leaving the Council. Most of them have given many hours of time to the work of the Association and **JOURNAL**. So we salute Maj.Gen. Albert C. Lieber (CE), Maj.Gen. Egbert F. Bullene (CmlC), Brig.Gen. Harry H. Semmes, USAR (Armor), Col. C. V. Clifton, Jr. (Arty), and Col. Carol V. Cadwell, USAR (MPC).

As you may recall, the Council voted at an earlier session, beginning next year to resume the practice of having the membership elect officers. As provided by the by-laws, such elections were suspended at the time of the Korean war.

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The Army's New Heavy Tank

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The **Army Combat Forces Journal** is published monthly by the Association of the United States Army. Publication date: 25th of preceding month. Publication, Editorial and Executive Offices: 1529 Eighteenth Street, N.W., Washington 6, D. C. Copyright, 1954, by Association of the United States Army. Entered as Second Class Matter at Washington, D. C., additional entry at Richmond, Va., under the Act of March 3, 1879. Articles appearing in **The Army Combat Forces Journal** do not necessarily reflect the opinions of the Department of the Army, the officers and members of the Executive Council of the Association of the U. S. Army, or the editors.

Rates. One year \$5.00; two years \$9.00 when paid in advance; three years \$12.00 when paid in advance. Subscriptions for libraries, civilian groups or activities, and others not eligible for membership in the Association of the U. S. Army \$5.00 per year. Foreign subscriptions \$6.00 payable in advance. For other rates write Circulation Manager, 1529 18th Street, N.W., Washington 6, D. C.

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Bachelors, Arise!

• There is a great deal of alarm in high places over the "failure" of the armed forces to attract young men to a service career. Examine the complaints and you'll find that every one is a *married man's complaint*.

The decision to follow a military or civilian career is usually made at a very early age—perhaps somewhere between 18 and 25—when the great majority of young men have little or no thought of marriage. Trying to attract young men to the service with such things as supermarket-type commissaries and increased baggage allowances is as pointless as baiting a fox trap with spinach. As any bachelor or ex-bachelor knows, marriage in the young male mind is usually something for the vague and distant future (even if, unsuspectingly, he is just about to be caught). Nothing could interest him less than improved lying-in facilities at the station hospital or a new teen-age club. What does interest him is an attractive way of life *now* and in the immediate future.

But paradoxically, present trends, instead of making the young bachelors' life in the Army acceptable by *improving* the conditions which are driving them from the service in droves, seem to be in the *opposite* direction. Some of them are exasperatingly, snugly discriminatory or indifferent to the bachelor's well-being—like providing garages only for married officers; cutting down on authorized floor space for bachelors (not

that many bachelor officers ever enjoyed these "authorized" living conditions); prohibiting the old type, independent officers mess that promoted so much camaraderie and esprit de corps; and depriving bachelor officers (and only bachelor officers) of their quarters allowance when traveling on PCS.

It is time we realized that the great majority of our new officers are bachelors, and if we want them to remain in the service, we will have to do more about improving *their* lot.

MARRIED OFFICER

The Army Wife

• Why has the Army wife been forgotten in the current fuss about enfranchising all of us? She serves at our side—the policies of the Pentagon permitting—yet many states that permit us, and even Red Cross girls, to vote say that she must be in the state to have a voice. Can you help?

LT. COL. JOHN C. H. LEE, JR.
Hqs IX Corps
APO 264, San Francisco, Calif.

Regimental Esprit

• Major Julian Paget, Coldstream Guards [June], takes the words right out of my mouth and I am moved to relate one striking incident illustrative of British esprit.

One night last year we were driving slowly down a Korean road looking for the lately arrived Royal Scots, when we saw

three men wearing the OD tam o'shanter characteristic of Scottish units. My lieutenant (formerly in the Black Watch, though now a United States citizen) called out "Hey, Jock, where are the Royal Scots?"

And without any hesitation, one of the trio (all privates, as it developed) answered loud, clear, and chip on shoulder, "We're the Royal Scots."

Not to labor the point, may I contrast this with the numberless times I have asked the whereabouts of a U.S. unit, only to hear "You mean the CP, or what?"

They have something we don't and we'd better get it, fast.

MAJOR JAMES W. KERR
1133 11th Loop, Sandia Base
Albuquerque, N. M.

• In view of the greater emphasis necessarily placed on Army Reserve and National Guard units by the "New Look" curtailment of the regular establishment, Major Paget's point that the "Regimental System" strengthens relations between regulars, reservists and citizens of the country seems of special merit and I would be interested in learning more about it.

One point of interest is the manner in which the British system handles casualty replacements within regiment.

One point for certain—it is disheartening to work and build a combat team balancing and counter-balancing weaknesses

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and strengths throughout the unit and then see that splendid team stripped for replacements for other units.

Let's have more information and discussion. . . .

CAPT. JOHN H. BOLTON, JR.
12214 Judson Rd.
Wheaton, Md.

• My sincere thanks to Major Julian Paget of the British Coldstream Guards Regiment for placing before us the answer to 90 per cent of our Army's problems. The principles of honor and comradeship pointed out for us in the article are well worth our consideration and subsequent employment.

We will do well to drop about 80 per cent of our "poster campaigns" and give our soldiers honor and tradition to live up to. We will do better by devising a system that will place our soldiers in a unit recruited from and defending the honor of their respective states.

Give me a unit that fights for honor. You take the hydrogen bomb, and we will beat you with our bare hands.

M/SGT. T. N. HORTON
Btry B, 501 AAA Gun Bn.
Camp Hanford, Wash.

Paratroopers and Helicopters

• "Front and Center" [June] had a couple of discrepancies. First, although you recommend ground troops for the relief of Dien Bien Phu, you specify airborne divisions. I believe that additional airborne troops in their "Flying Boxcars" would have just increased the number of prisoners the Reds were able to pluck from the air as they came drifting down, and those flying boxcars would also increase the targets for those all too accurate antiaircraft guns located around the Dien Bien Phu perimeter. Secondly, on the same page you chide the Air Force, and probably justifiably, for being such poor shots on the drop zones, after all these years of practice. This casts further doubt on the wisdom of an airborne attack by the conventional paratrooper.

Let's face facts—regardless of the fact that the Army's high command is loaded with paratroopers—and recognize the obsolescence of the airborne trooper who uses a parachute to reach the enemy. On the other hand, helicopter-borne troops could have pulled off the operation pretty successfully because of their low-level flight and pin-point accuracy of hitting the drop zone, and this would lessen casualties immediately, even though they would still have been heavy. Also, this type of attack would result in no jump pay, sprained ankles, or digging of heavy equipment out of the rice paddies.

However, the school solution would seem to me to be, in this situation, a ground relief column, maybe in conjunction with a helicopter-borne assault of troops on Dien Bien Phu itself. An overland attack by a reinforced division with air cover from the

nearest landing beach or Hanoi would have been feasible.

CAPT. HENRY W. TUBBS, JR.
6th Special Inf. Co., USMCR
Cumberland, Md.

• Capt. Tubbs has understandably overlooked our deadline. We wrote that item before the Dien Bien Phu perimeter was compressed during the few weeks preceding the end of the struggle. Frankly we cannot believe that helicopters would have been less vulnerable to the Reds' antiaircraft fire than paratroopers. As to the accuracy of Air Force over drop zones we have never heard a paratrooper who wouldn't say that the Air Force could be more accurate, nor have we ever heard of a paratrooper who said "I won't go because they won't drop me at the right place." There is room for improvement, as in most all human activities.



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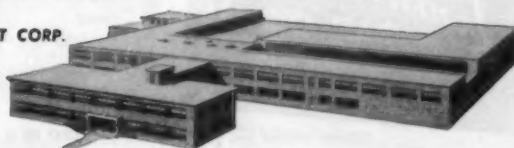
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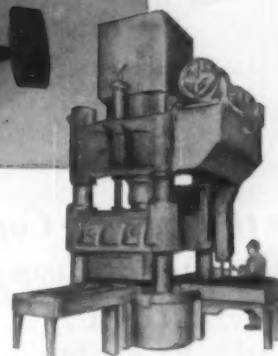


Co. B, 35th Infantry

• "The Defense of a Battery Position" by Captain Russell A. Gugeler [June] particularly interested me because it mentioned the 1st Battalion, 35th Infantry Regiment, 25th Infantry Division, which I had the privilege of commanding during its first six months in Korea.

In describing the general situation leading to the specific situation involving Battery A of the 64th Field Artillery Battalion the article states that "One penetration fell against the 35th Infantry, a regiment of the 25th Division, soon after midnight on the morning of 3 September. The enemy pushed Company B from its position, surrounded Company G and the 1st Battalion command post, and then attacked several batteries of artillery."

Since the article is contained in what I presume to be an official history under the supervision of the Chief of Military His-



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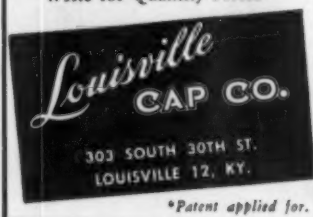
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tory, Department of the Army, I would like to make one correction for the record. The statement that the enemy pushed Company B from its position, I can state categorically, is incorrect. Company B, commanded by Captain Robert J. Dillard, occupied a key terrain feature in the 1st Battalion zone and although the company was subjected to repeated attacks by vastly superior numbers it did not at any time while on the Pusan perimeter lose one inch of ground.

It is easy to understand how errors of this nature will appear even in official histories of combat. However, in fairness and in tribute to the courage and tenacity of the members of Company B, 1st Battalion, 35th Infantry, I must call attention to the error that has been made.

* LT. COL. BERNARD G. TEETERS
PMST, St. Norbert College
West De Pere, Wisc.

Suggestion

• In your April issue you asked for comments on what would help to make a better Journal. The Journal is tops with me now, but I do think more could be devoted to platoon and company level material, and it should not all be devoted to combat action. I try to plug for CFJ in my organization, but the answer I get is that the magazine has too much tech service material

and high level material that the squad leader, platoon sgt and platoon leader don't need.

I would say let's have more material like "Battle Future of Our Army," "Stars, Stripes and A-Bombs." But let's break them down to company and platoon level. Material like "The Rifle Squad, Key to Movement" is what I look forward to.

SFC WALTER JOHNSON
APO 178, New York, N. Y.

Le Pont Patton

• Attention Third Army veterans! If you rolled with General Patton, an unusual opportunity presents itself to honor his memory. The French Government has agreed to name the new bridge nearing completion at Fontainebleau, France, "Le Pont Patton" after our beloved Commander, if an appropriate statue of General Patton is erected on the site prior to the completion of the bridge this year. It is estimated that \$5,000 will assure the completion of the statue. It is requested that each Patton man send his check for \$10 as soon as possible to General Hobart R. Gay, Commanding General, III Corps, Fort Hood, Texas, addressed to the General George S. Patton Memorial Association Fund.

COLONEL C. E. CHEEVER (Ret.)
San Antonio, Texas

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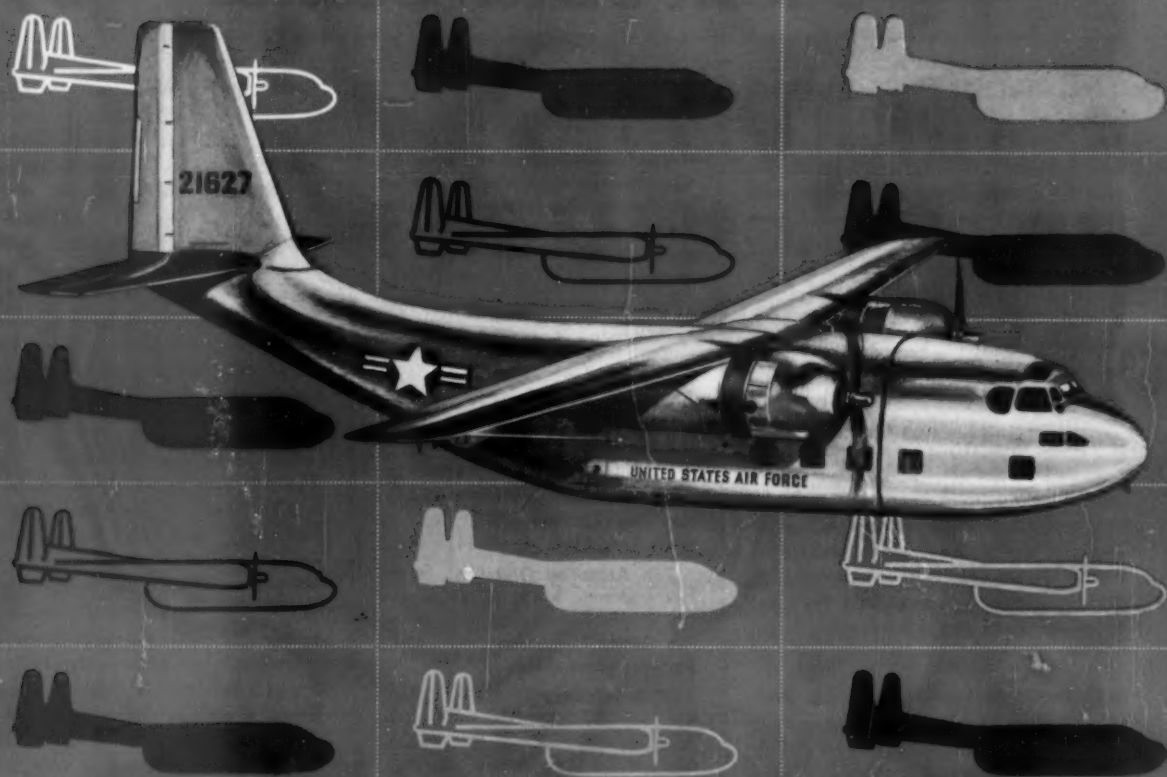
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Speed Control Division, Wickliffe, Ohio • Strokes Division, Bay Shore, N. Y.

Front And Center

Major David F. MacGhee, a likable, 34-year-old redhead with 13 years' service as an Air Force navigator and observer, spent 1,030 days in Communist prison camps in Korea and was tortured for not cooperating with the Reds. Now on duty in the Pentagon, he considers the failures of commissioned and non-commissioned leadership in POW camps a national disgrace, begging for official attention. "There was an agonizing shortage of leadership which . . . degraded the armed forces [and] played directly into the hands of the Communists" he has written in a document designed to get action. He warns that "to ignore our national interest and subvert leadership responsibilities to psychiatric rationalizations or to individual considerations of human desires for personal survival, is to embark on a national course of moral bankruptcy."

Airborne Association, Inc., has been organized by five former paratroopers at Fayetteville, N. C., hard by Fort Bragg. Purpose of the organization is to "unite fraternally and for mutual benefit, protection, improvement and association, former, present and future airborne troopers."

The Department of the Army has received a resolution of the Fort Benning Parent-Teacher Association that calls for an integrated, uniform school system for

REUNIONS

The information listed here was furnished by officers of the various associations. For further information we suggest you write directly to the organization in which you are interested.

4th Infantry Division. Hotel Alexandria, Los Angeles, Calif. 5-8 August. For details write: Lewis W. Smith, Reunion Chairman, 4517 Marmion Way, Los Angeles 65, Calif.

1st Infantry Division. Hotel Statler, Washington, D. C. 20-22 August. For details write: Society of the First Division, 5309 Germantown Ave., Philadelphia 44, Pa.

7th Armored Division. Statler Hotel, Detroit, Mich. 27-29 August. For details write: Reunion Comm., 7th Armd. Div. Assoc., c/o Hotel Statler, Detroit, Mich.

37th Infantry Division. Morrison Hotel, Chicago, Ill. 4-6 September. For details write: Jack R. McGuire, 1101 Wyandotte Building, 21 West Broad St., Columbus 15, Ohio.

military dependents that would make the transfer of a child from one post school to another easier on the child. Present laws restrict post schools to a per-pupil cost that is comparable to local public schools. And, as is well known, public school standards fluctuate widely

throughout the 48 states and the territories. The Department of the Army hasn't received similar expressions from other post PTAs and the Benning resolution will probably rest in some file. Actually the Department of the Army is merely the agent of the Commissioner of Education of the Department of Health, Education and Welfare so far as dependent schools are concerned. Congress, which votes the money, also voted the stipulation that post schools should conform closely to local standards.

The transfer of AFF Board No. 1 to The Artillery School, Fort Sill, and the establishment of AFF Board No. 5 at Fort Bragg will assist the Army's pursuit of greater mobility and increased fire power. Board No. 1 will specialize in field artillery and Army aviation equipment while the new Board 5 will specialize in airborne equipment. Board 2 is at The Armored School, Fort Knox; Board 3 at The Infantry School, Fort Benning; and Board 4 at the AA & Guided Missile Branch of The Artillery School, Fort Bliss.

Biggest news in the revised Department of the Army reorganization plan is, of course, the creation of a Deputy Chief of Staff for Logistics. This office will have command control of the technical services and will assume the "operating activities" that have been performed by G4. G4 will, in consequence, be somewhat down-graded. The plan will give the D/A four assistant secretaries in addition to the Secretary and Under Secretary. The latter will be deputy and general manager while the four assistant secretaries will be responsible, respectively, for Financial Management, Logistics, Manpower & Reserve Affairs, and Civil-Military Affairs. It is expected that these secretaries will have closer control over the General and Special Staffs, and the technical and administrative services. The Army Comptroller will continue to be a uniformed officer. The Office of Legislative Liaison and Chief of Information will be shifted from the Chief of Staff to the direct control of the Secretary of the Army. The new plan retains the proposal to create a Continental Army Command, replacing Army Field Forces, and gives it added responsibilities.

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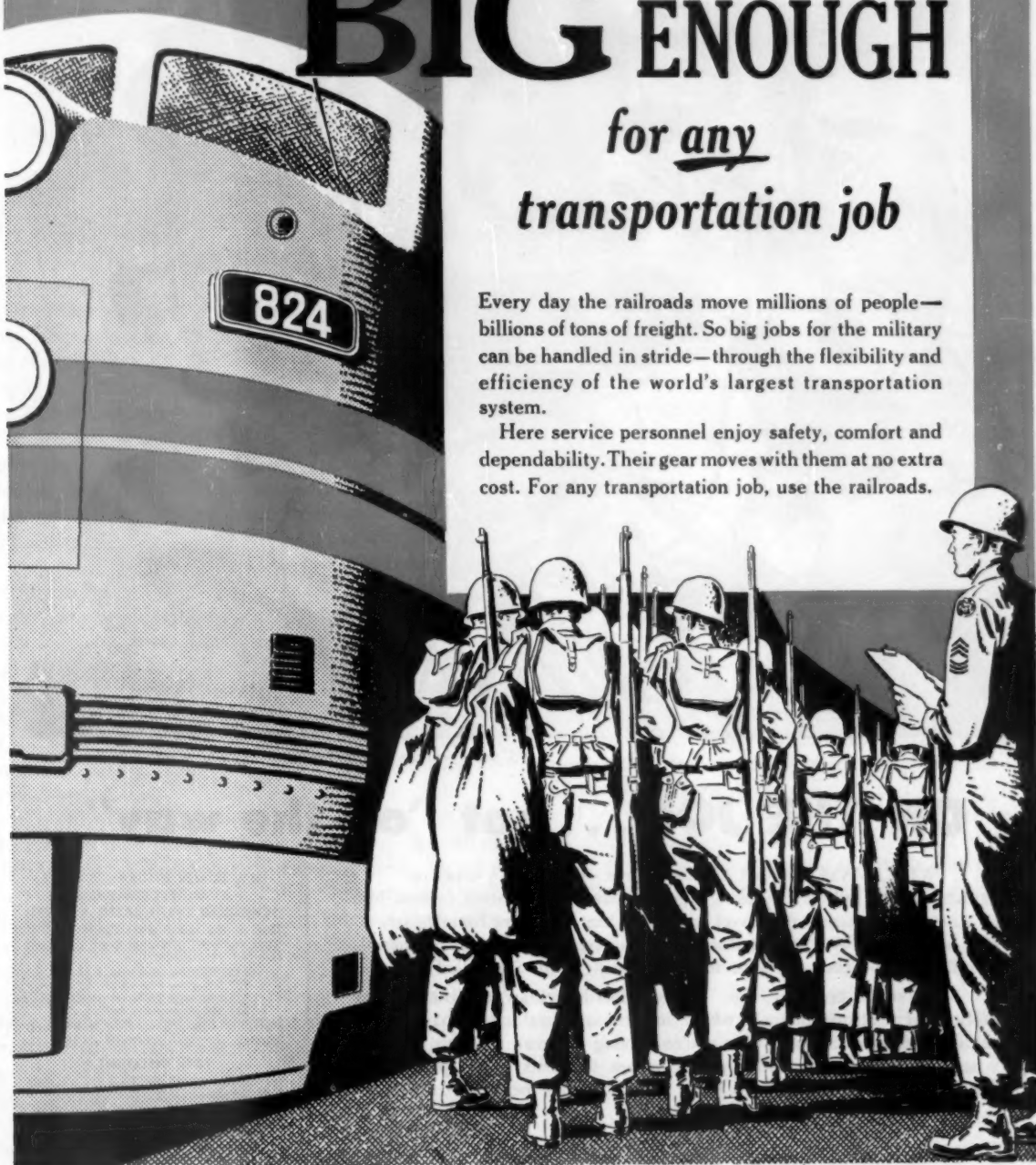
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WIEN ALASKA AIRLINES

General Gavin, And We Don't Mean 'Slim Jim'

WE have yet to find an officer who isn't aware that General Gavin recently wrote an article called "Cavalry, and I Don't Mean Horses." Many of the officers we have talked to had read it either in this magazine, in *Harper's*, or in *Armor*. And most of them seemed to agree with what he had written (a few took mild exception to portions of it). But none of them seemed enthusiastic. Not a single officer said, "I sure did read it and I'm going to get behind him and push for that kind of an Army."

Most officers seemed to find the article of curious, rather than of serious, interest. And this, we found, was because of their interest in the author as one of the fabulous soldiers of our times. One consistent reaction was a discussion of General Gavin personally. This led us to conclude that here was a case of a tremendous reputation creating a block between the reader and the meaning of the words he had written. They were so intent on reading "Slim Jim" Gavin that the serious thoughts General Gavin had expressed eluded them. This illusion is something like those created on television programs that use puppets. You become so entranced by the action of the puppets that your mind simply accepts what the voices are saying without conscious comprehension of their meaning.

It is palpably ridiculous to feel impelled to say that General Gavin is not a puppet contorting on the end of a string for the enjoyment of the multitudes. But we say it because we are hopeful that General Gavin will not have to say in a year or three years from now, as he has said about an earlier article he wrote on the same subject: "I accomplished little."

What is it General Gavin is saying today, as in 1947? He is saying that the Army must shake off the encumbrances that shackle its freedom to move fast, hit hard, and move again.

In short he is saying that the Army must be mobile.

That ought to be clear enough, but unfortunately it isn't.

Mobility used to be a simple word that everyone understood perfectly. In those days it was a soaring word that opened wide the windows of the imagination. But in recent years the windows have been shuttered and locked by a certain segment in the Army that has tried to make the word the exclusive possession of its arm.

Mobility truly means, as the dictionary says it means: the ability to "move readily." The key word is "readily" which means promptly. This may mean moving fast or it may mean moving far. Both the sprinter and the dis-

tance runner are mobile. An infantry outfit that grinds away a couple of thousand yards a day in a tough battle may actually be more mobile in spirit and performance than a tank outfit that moves eight miles when it could have moved sixteen. The ability to move readily is relative. It depends upon the situation and there are limits in an imperfect world where friction, the elements, and man's own limitations hamper the fullest possible freedom of movement.

Truly defined mobility isn't the exclusive possession of armor or airborne, of air power or sea power. No single arm or service, weapon or vehicle has exclusive possession of the capability of moving readily.

It may be well to run down a few homely examples of the lack of true mobility, the inability to move readily.

The capability of moving readily was not possessed by the tank battalion in Korea that had to wait for five days for the engineers to blast a track up the tortuous Suipchon River valley so armor could help put the finishing touches to the 2d Division's battle for Heartbreak Ridge.

The capability of moving readily was not possessed by the infantrymen of the 32d Infantry Division who hardly survived the terrible ordeal of marching over the Owen Stanley Mountains in New Guinea in 1942.

The capability of moving readily was not possessed by the Ninth Air Force in Europe when weather in the winter of 1944 kept it from striking at Von Rundstedt's counter-offensive in the first days of the Battle of the Bulge.

IT is said that a good heavyweight boxer will beat a good lightweight more often than not. But take them out of the ring and put them on a steeply pitched roof in a blinding snowstorm at 2400 hours and the smart money probably wouldn't follow the adage. The good light man would have a powerful equalizer in his superior ability to move readily. And so it is in war on the earth where there are few areas as level as the boxing ring and many areas as difficult as a steep roof. On the relatively level Sahara and perhaps in a few other nearly riverless, mountainless, swampland, jungleless areas of the world the good army, heavy with armor and accompanied by infantry riding in armored carriers, might, more often than not, defeat the good army, light in armor but skilled in moving readily. But elsewhere on the earth's surface the smart money wouldn't be quite so sure.

There is another point here that must be emphasized. The good army, heavy in armor and armored accoutrements, is a heavier consumer than the lighter, faster army.

This obvious point is worth mentioning because we so often hear such damning adjectives as wasteful, swollen and inefficient thrown at the services of supply. When we hear this we ought to shout halt and utter a little lecture ending by saying that so long as that heavy army up front consumes so much, the very act of keeping it alive will create a Frankenstein's monster behind. Until combat armies reduce their capacity for consumption we can't expect the services of supply to attain a leaner appearance and receive fewer damning adjectives.

WHEN we reach the promised land of true mobility, of being capable of "moving readily," our armies will be "leaner and meaner," faster and nastier. This will probably come about through the sanctification of the marriage of the airplane and the tank. Some might say that this marriage will come off when the encrusted traditionalists are finally laid to rest, but that wouldn't be quite true. There are other thorns in the path of this desirable union.

Some of the sharpest thorns are directives of higher levels than the Army and agreements between the Army and the other services, notably the Air Force.

Whatever the virtues of Unification with a capital U, as they are now or as they were between 1945 and 1949, it can be said that in 1954 it is hardly debatable that the Army gave away too much to get Unification. Some of the give-away preceded 1945, going back to the days when the Army Air Forces, strategic and tactical, became nearly autonomous. The substitution of written agreements and coordination for actual command and control of those elements of air power that the Army must have if it is to survive as an effective force was too high a price.

Close air support exists only by sufferance today. The system for employing it is cumbersome and time consuming and lacking in the capability of moving airplanes readily. There is evidence that since the development of smaller atomic bangs and tactical aircraft that are larger, faster and possessed of greater range (along with Ficon and refueling-in-flight techniques) the tactical air people are taking dead aim on some of the missions of the Strategic Air Force. That is about as far as you can get from a concept of close air support of ground forces faithfully and earnestly performed. If you doubt this, read the leading article in the July issue of *Air Force* magazine.

The article says that there is a school of tactical airmen that believes "the ability to destroy targets progressively deeper within the Soviet Union brings tactical aircraft into an ever-closer partnership with the long-range bomber. Thus, tactical airpower has acquired usefulness far beyond its ability to localize and win peripheral wars and, in fact, has become at least a junior partner of strategic air in the role of deterring all-out war, and winning it should it come."

Plainly, the Army had better look elsewhere for close air support. And where else but to itself?

The article does make a bow to tac's close support

mission. And it sees an advantage in its ability to carry atomic bombs. Here's the word from *Air Force* magazine:

"The targets associated with the close support mission—the enemy's forces on the ground—are likewise vulnerable to atomic attack. For example, it is comparatively easy to spot artillery emplacements from the air, but not so easy to knock them out with conventional bombs. With nuclear weapons the need for accuracy is not nearly so great. Close is good enough . . ."

We don't doubt it. But where are the controls to insure that the bomb doesn't fall on one of our gun emplacements rather than the enemy's? Artillery emplacements are "easy to spot" but harder to hit. Also harder to be sure you are hitting the right one. The wrong ones are also easy to spot.

And what assurances are there that the outer reaches of the bomb will not reach our own forces if the emplacement is self-propelled, "accompanying artillery"—which the Russians are said to like very much and specialize in?

In last month's *JOURNAL*, H. A. DeWeerd wrote and italicized: ". . . a start on the tactical air support problem cannot be made until after the nature of the ground force atomic units and the doctrines governing their employment have been worked out." We doubt if many in the Air Force would agree with DeWeerd. The quotations we have made from *Air Force* magazine suggest to us that the Air Force is not at all interested in the size and character of ground units or their tactics in atomic combat. We hope we are wrong but we don't believe we are.

IT is not all very well to have joint boards for techniques and developments. Impressive though they be in name and concept it must be underscored that *split* papers are common with them.

Higher directives and agreements in the name of Unification have other potentially baleful influences. It may be unwise to venture the opinion today, but is there not evidence that in the past few years the services have gone slightly "helicopter happy" and are now beginning to recognize its limitations? This may be self-adjusting except for the Army tied down as it is to a 5,000-pound limitation by the Army-Air Force agreement. Even a convertiplane that will do the job better than the helicopter will not solve the whole problem. So long as that agreement remains it will be a millstone around the neck of Army searchers for mobility and a whip that drives them towards trying to do things with helicopters and light fixed-wing aircraft that may be uneconomical and impractical. It leaves the Army dependent upon the Air Force for troop transport and the development of troop transport aircraft.

If the Army is to have the capability of moving readily, the marriage of the airplane and the tank must be pursued with relentless singleness of purpose. The union is clearly a partnership proposition. On the one hand transport aircraft must be developed that can carry the necessary weapons and vehicles and land and supply

Only aroused public opinion can remove the fetters that shackle the Army's mobility

them in combat areas. On the other hand effective weapons and vehicles must be designed that can be carried in the best possible planes aeronautical engineers can turn out for that purpose. But what is being done? Whatever the degree of activity, it is obviously not a hand-in-hand affair of one set of like-minded people working intimately and wholeheartedly with another set of like-minded people.

Look at the record! For five or more years the Army has been after an assault transport that could land on and take off from a road, a meadow or a beach, and for a large part of that period one version of such a plane (not altogether satisfactory) has been "on order." And after that order of C-123s is filled, what then? What new models or concepts are now on the drafting boards or are being built into prototypes? Whatever the record is, contrast it with the unending models of new fighter aircraft the Air Force has pouring from the factories of several producers.

One of them, Republic Aircraft, currently is proudly advertising that in a period of ten years it has produced successively the World War II Thunderbolt; the Thunderjet, used in Korea; the Thunderstreak, now in service; and the Thunderflash just coming out. Contrast that record with the record of Fairchild transports. The C-82 appeared at the end of the war and was followed a few years later by the improved C-119. Since then the latter has gone through several modifications. There has been no succession of transport aircraft of improved design built to carry tactical formations into battle. Such cargo craft as the C-124 and other such cannot be classed as aircraft suitable for the assault uses of the Army.

COLONEL WILLIAM B. BUNKER, the Army helicopter expert, recently headed a committee of military men and civilians that looked into the problem of convertible aircraft. They found, it has been reported, that manufacturers of fixed-wing planes are not much interested in performance factors involving landing and take-off. Designers, the committee observed, are "loath to propose any developments which improve these areas which are regarded as secondary if they entail, as they usually do, some sacrifice in the speed or empty weight of their aircraft." This leaves the field to the helicopter people and, applying it to the situation facing the Army, means that the Army must try to do things with helicopters and liaison planes that could be done better by properly designed fixed-wing planes.

The Army can carry cargo on planes that come within the established weight limit. For example, Cessna, which builds the L-19 for the Army, has an advertisement which boasts: "The Cessna 'Bird Dog' Is a Pack Horse, Too." The ad explains that the L-19 is capable of carrying up to 500 pounds of supplies in containers fastened to the wings. All very fine! Of estimable usefulness in particular and limited situations. But why not two 250-pound bombs to hit that enemy strongpoint the observer in the

L-19 sees when he sees it? He'd better not. It's illegal under the terms of the Army-Air Force agreement.

Within the Army itself the need for an improved capacity to move readily is not being translated into lighter, faster, harder-hitting hardware fast enough. The new jeep is heavier and costlier than the old and so are the new cargo trucks; the new family of tanks is heavier and more costly than the World War II family of tanks; communications equipment is lighter; engineer bridges are getting lighter and more capable of moving readily; but the new light and medium field artillery weapons are probably no lighter in weight than the old.

It may be that more progress is being made to produce the weapons and machines that will signify that the marriage of the airplane and the tank has taken place than is suggested here. Those not in the know can with justification be "from Missouri." However, it is of interest to know that there is an effort outside the services to consummate the marriage. This is the effort by retired General Jacob L. Devers, working within the Fairchild Aircraft and Engine Corp., to produce satisfactory prototypes of airplanes and weapons that are matched to each other. They prefer that not much be said of their work yet, but their concept is intriguing. It includes an airborne "tank" carrying a 90mm gun. Whatever the eventual outcome of this private effort it is a laudable one, impelled by a desire to make it possible for the Army to move readily—to have true mobility.

ONE of the officers who discussed General Gavin's article with us observed: "Well, he's G3 now and so he ought to be able to get what he wants." That officer was speaking lightly. An old hand in the Pentagon, he well knows that action is not that simple. We are reminded that even such a bluff personality as the late Colonel Frank Knox found that he couldn't buck his own admirals and move the office of the Secretary of the Navy from Constitution Avenue to the new Pentagon.

But though it will not be easy to overcome the barriers that impede the way to the capacity to move readily—it can be done if every one of us gets on the job. We must at every opportunity talk of the restrictions that fetter the Army. And if we do this well and faithfully, eventually public opinion will swing around. On the day that public opinion whispers on Capitol Hill, on Pennsylvania Avenue, in the E ring of the river side of the Pentagon that the Army should be loosed from the fetters that hamper its mobility, the fetters will be removed—just like that.

And what then? Then there will be outcries that the obstinate, prejudiced, foggy-ridden Army has all but thrown away the nation's security by being so blankety blank slow in preparing itself for atomic war!

That the Army can take. What the Army (and the nation) don't dare take is for the men who seek to achieve true mobility for the Army to have to say now and later: "We accomplished little."



The Pros

The unpredictable cash customers are more likely to boo than to cheer so the practicing professional must look to himself and his fellows for the rewards that go with duty well done



COLONEL A. T. McANSH

TO our young uniformed Man of Distinction—we older ones have learned it already—it seems that the nation he so proudly serves must be waiting with interest to applaud him for the hard career to which he has set himself. He adjusts his uniform, straightens his Combat and/or Expert Infantryman Badge, his Parachutist Badge, and other accouterments, and waits for his due reward. He waits . . . but he hears no applause. The people have their minds elsewhere. Our young uniformed MofD feels let down.

It is time to tell him, the practical professional soldier, some additional facts of life. How in the final analysis he will have to look within himself and to others of his kind who have gone before him, for the necessary resolution, firmness, and staunchness that his job demands. I shall try with three personal examples to give him the word.

JANUARY, 1928. Newspapers had been carrying reports of fighting going on between Marines stationed in Nicaragua to preserve the peace, and Sandino, a revolutionary who had refused to quit when his chief did and who had gone into the hills to fight on. Clashes between Marines and Sandino's troops had been sharp and bitter, with some killed and wounded on both sides. I took an interest in this for some of those Marines had been my buddies. I tried to describe some of this to a friend one day at lunch. I did not have much luck. He was deep in the stock market page of the newspaper we were sharing, and was debating what to buy. Finally he heard what I was saying. "Nicaragua? Where's that? What in hell are they doing down there anyway?" And by inference, "That's what they're paid for, isn't it?" He went back to the market quotations, I to my lemon pie.

JULY, 1943. In the cocktail room of the dear old Saint Francis Hotel in San Francisco I was busily polishing off a few last ones before moving on to the west. The scene was quite plush, even for a warring country that could afford to lose three cruisers in as many minutes. Tables were filled

and the long bar was packed, service people, but more of Rosie the Riveter and her escorts. The talk was fast and loud—"Got two steaks from the butcher yesterday, no points needed." . . . "Aw, I never use a gas ration card" . . .

My attention was caught by a young Army Air Forces lieutenant colonel seated nearby. He was alone. From his ribbons I could tell he was back from the South Pacific and from his drawn face I could see it was recently. The scene he had just left had not been so plush.

There was another look on the colonel's face too, besides the tired drawn look. A combination of disgust, amazement, sadness and a few others that plainly said: "So this is what I was sticking out my neck for."

I could see he had not got the word. I started to lean over and cheer him up, tell him everyone was rooting for him, then thought of his fifty per cent flying pay and drew back. He looked sharp. He could see for himself, anyway, and I had to go. I paid my check, finished the last of the old fashioned, took a last look at the crowd, and at the officer's face—the look was still there—and left. Still thinking of the scene, I decided that whether the shooting lasted a few more days or a few more years, I was not coming back until it stopped, else I might find a look like the fly boy's on my puss.

IN the months I spent in the Sixth Army in the long haul from Finschhafen to Kobe, I almost forgot the plush scene at the Saint Francis (or the Moana). In spite of the rain, humidity, jungle and Tojo's friends, there was something satisfying about it. Perhaps part of that feeling was caused by the fact that the austerity program we were under, and it was austere, started with the army commander. He lived like the rest of us. There were few castles—all in Spain—but they were not missed too much. Everyone got on with his job; San Francisco seemed far away.

But some got back. During the breathing spell between Baguio and the OLYMPIC show, some of our people went Stateside on short leaves. To those who would listen and wondered why I did not go, I told them about looks on people's faces. They went away mumbling about "some people missing too many boats." Time marched on and as

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we prepared to mount up for OLYMPIC with the first team of the Division melting away from under our feet under the workings of the point system, our officers gradually came back to us. And they had one thing to say, "You were right." I felt more sad than smug when they told me.

FEBRUARY, 1951. Another hotel, the Broadmoor in Colorado Springs. Another plush scene, a semi-official gathering where I was an invited guest. I was present with mixed emotions. In my pocket I had a brief note received that day telling me my best friend was missing in action in Korea. I had selected him to head the battalion my 14th RCT had been directed to ship posthaste to Korea, when higher authority stipulated that the best be sent. So Lieutenant Colonel Edgar Treacy, Jr., got the job—the job he wanted. In another pocket I had a transcript of a telephone message from Department of the Army telling me I was being detached from the reconstituted combat team—the one I wanted to take to Korea—and was being assigned to mission duty in Brazil.

The conversation swirled around me—much like I had listened to at the Saint Francis. Business was good, tourist trade was good, and Camp Carson was being expanded. The Air Force was moving back and the City Council had just voted to take off rent controls. Yep, looks like a good season. I could almost see the AAF lieutenant colonel of 1943 at the next table.

But help came from an unexpected quarter. My mind flashed back to a pre-war scene at the Chicago Stadium. It was one of those bruising playoffs for the Stanley Cup, between the Chicago Black Hawks and the Boston Bruins. The audience was frenzied. In a melee right in front of me, a Chicago and a Boston player came together. When they parted, the Boston player had one cheek laid open by the stick of his Chicago opponent, unintentionally, or otherwise, probably otherwise. As the player staggered momentarily against the boards, a sweet old lady in the first row bopped him over the head with her handbag.

That player had an interesting look on his face as he skated off for repairs. There was no trace of self-pity, resentment or righteous anger—either at the lady, or the other player, now parked in the penalty box. He was a practicing professional, hired to put on a show. His look was one of mild wonder as he probably reflected: "These cash customers want a hell of a lot for their money."

Ten minutes later he was back on the ice, patched up, checking his opponents into the boards with enthusiasm and paying no attention whatever to the little old lady.

That helped. I thought, "Well, bud, that's what you are, a pro, and if the cash customers—or the management—appear to want a lot for their money, well, that's part of the game, and you can like it or lump it." I chose to like it. I felt better.

1928. 1943. 1951. And I see nothing in our changing scene that will place a different picture before my quizzical gaze in 1958.

I have no rancor in my heart. On the contrary, I like my job. I like the fine people who pay me. I marvel that everyone does not want to get into the act, for that would be too bad; I would have to go to work. But I have no illusions about it either. In the newspaper I read a fine tribute to our

gallant fighting force and their forward-looking leaders; I take my tongue out of my cheek long enough to do the author proper homage. I turn the page again and read about some worthy individual deploring the effects of the closed military mind on future warfare. I put my tongue back in my cheek, reflecting with Babe Ruth, "You're a hero today, a bum tomorrow, so what the hell," and turn another page. Ah, Li'l Abner.

WHEN Li'l Abner palls I can always turn to the books and read of my own kind, those who are still around and those who have gone before. And my reading covers a wide range: I read of DeCastries of Dien Bien Phu, Smith at Chosin and Hodge at Okinawa; of Krueger at Leyte and Vandegrift at Guadalcanal; of Huebner at Omaha Beach and Alexander at Dunkirk; of Rommel and his Afrika Korps and Stilwell of Burma; of Spruance at Midway and Keyes at Zeebrugge; Callaghan at Savo Island and Beatty at Jutland; of Butch O'Hare at Tarawa, Doolittle at Tokyo, and Bishop at Cambray; of McAuliffe at Bastogne and Cambronne at Waterloo; of Lejeune at Blanc Mont and Haig at First Ypres; of Von Sanders at Gallipoli and Smith-Dorrien at Le Cateau; of Grant at Shiloh and Jackson at Chancellorsville; of John Paul Jones and his *Bon Homme Richard* and Nelson and his flagship *Victory*; of Napoleon at Austerlitz and Bragration at Znaim; of Kitchener at Omdurman and the Light Brigade at Balaclava; of Wellington on the Peninsula and Marlborough at Blenheim; of Drake and the Armada and Cromwell and his Ironsides; of Leonidas at Thermopylae and Caesar at Neuf-Mesnil—the list stretches on and back.

It all makes for fine reading, these leaders of the trade. One hundred percenters all, these wearers of the Red Badge of Courage. Not a "five percenter" in the lot. And as their shadowy faces parade in front of me across the printed story of their deeds, I can see in spite of their differences in dress and headgear a common, or rather uncommon characteristic about them all—a look of selflessness in their eyes, a look of self-sacrifice on their faces. Strange. Ed Treacy had that look too.

I put down my book and go back to my job with a tranquil mind. I feel I am in good company. Their way of life is good enough for me. The newspaper with its article on the Military Mind drops to the floor unnoticed.

AND this I would tell our young uniformed Men of Distinction: "If you are not to find your morale moving up and down with the morning headlines, you must come up with a philosophy relating to yourself, your job and those you defend that will give you inspiration to carry on your duty."

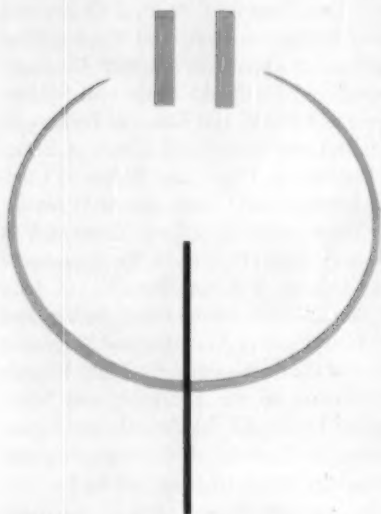
"So stick to your job. Keep your mind on the game—and off the cash customers in the stands. It is easier on the teeth that way. For when it comes your turn to carry the ball for a good gain—or to get hurt on a play, or both—you may find that they are all looking somewhere else."

And if that cheery thought does not comfort you sufficiently, turn to Marcus Aurelius and others of his kind and read that the mighty Romans were not always a vast cheering section for their legions either, but that the legions managed, nevertheless, to turn in some remarkable victories regularly.

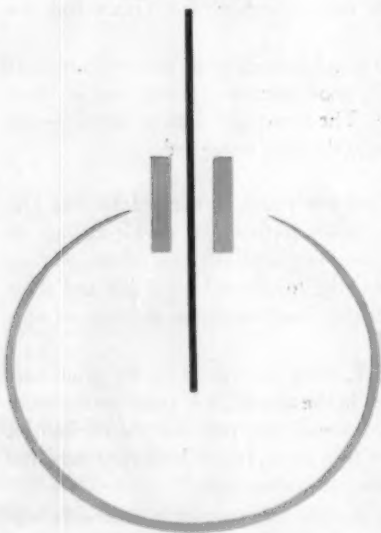
The search for methods that will win

Ground Tactics in an Atomic War

COLONEL EDWARD L. ROWNY



Battalions are the logical units to disperse beyond mutual supporting distance



NO less an authority than Admiral Radford, the Chairman of our Joint Chiefs of Staff, has publicly stated that "Today, atomic weapons have virtually achieved conventional status within our Armed Forces."

This face-to-face challenge to soldiers was expressed forcibly by Lt. Col. H. A. DeWeerd in last month's issue of this magazine. What are proper tactics of ground forces in a war that uses such weapons? Is it not now quite clear that our emphasis on certain tactical principles must be shifted if we are to win an atomic war? We must be prepared to fight an atomic war if the necessity comes, yet we can foresee many situations where the use of the atomic weapon tactically would be militarily uneconomical, or where its use might be avoided.

I believe that it is possible for us to make certain changes in our tactics which will allow us to win an atomic war, and which, with minor changes, will permit us to fight a non-atomic war as well. Our problem is to examine the influence of atomic weapons on our methods to see what can be done without destroying our capability for fighting a non-atomic war. The changes discussed here are based on the conviction that it is far better to be prepared to fight an atomic war and to make minor modifications if such a war does not materialize than to be unprepared to fight an atomic war and try to make the changes under atomic or thermonuclear fire.

We can make three generalizations concerning the influence of the weapon on our tactics:

- We realize maximum overall effect when the weapon is used in conjunction with the maneuver of troops.

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- There is an ever-present problem of protecting our forces from the enemy's atomic attacks and from the fringe effects of our own weapons.
- Atomic warfare magnifies the importance of the time factor in all operations.

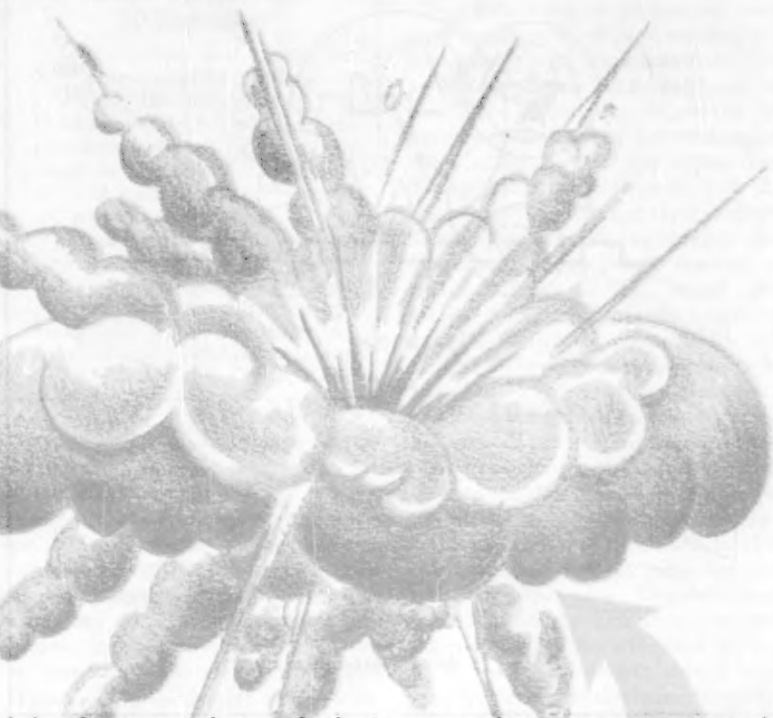
THE first generalization calls for ground forces to move into the blast area, to move to skirt the blast area, or to execute other maneuvers which maximize the damage, shock, and confusion created by the explosion. If such exploitation is to be effective, we must reconsider certain of our tactical principles. In the first place, we should think in terms of larger or deeper terrain features. Because of the magnitude of destruction involved, stress can now be placed directly on capturing or killing enemy rather than on the seizure of a series of intermediate stepping-stones which facilitates that end.

Concentration of our forces will require a new interpretation. The use, or threatened use, of atomic weapons may well cause the enemy to disperse his forces widely. As a consequence, heavy concentrations of attacking forces will be called for less frequently than heretofore, and small, rapid-moving elements can form the basis of our tactics. Further, maneuvers which force the enemy to mass and thereby create atomic targets for us, should be planned and used. Atomic warfare de-emphasizes those concepts calling for forward assembly areas, concentration and positioning of forces well in advance of an attack, and similar traditional practices. Thus the first generalization—exploitation to gain the full potential of the weapon—puts new emphasis on rapid movement and on the control and operation of separated forces.

CONSIDERATION of the second generalization—stress on protection—must start with the following basic observation: It is patently impossible to draw a circle and say that within this circle all persons will be killed and all objects de-

stroyed, and that outside it no persons or equipment will be harmed. Depending upon the configuration of the ground, the yield of the weapon, the height of burst, and the delivery error, the non-lethal but significant effects will apply at some distance beyond the circle's edge. To us, as users of the atomic weapon this carries a simple message: Our troops must be physically protected or they must be at some greater distance from the edge of the circle. As far as physical protection from enemy atomic attack is concerned, we can provide active defense against air and ground-launched missiles, conceal our troops from enemy observation and furnish underground positions and shelters. Physical shielding from an atomic explosion, since it is by all odds the surest form of protection, creates another danger: our combat forces may lose their offensive spirit. But what interests us here are the ways by which we can use tactics to increase our protection. One immediately apparent method is to disperse more. Greater dispersion makes troops less vulnerable to atomic attack by presenting to the enemy a less dense and hence less profitable target. A second tactical way to increase protection is to increase movement. A stationary target will generally be more vulnerable than a moving one. Moreover, a unit on the move will tend to move in column formations rather than as a circular mass, and hence will present a less likely target to enemy atomic weapons. Still another way to increase protection is to concentrate as close to the enemy as possible. These "bear-hugs," if made close enough, will inhibit the enemy's atomic retaliation. An unscrupulous enemy might sacrifice his troops to an atomic blast in the hope of destroying greater numbers of ours, but he will probably not do this if his troops are protecting critical localities. In massing, we should adopt Rommel's concept of concentrating in time rather than in space. Furthermore, in view of the enemy's atomic threat, concentrations should be made for as short a period of time as possible. In short, there is a direct relationship among dispersion, mobility, and protection.

THE third generalization is that atomic warfare places great emphasis on time factors. Although speed is an essential factor in all types of operations, it assumes unprecedented significance when we are dealing with a mass destruction weapon. Tactical targets will most often be fleeting targets available for only a short period of time. An enemy troop concentration may begin to dissipate



before the target can be properly identified and the strike made. Rapid transmission of information about the enemy and immediate action based on that information are indispensable. Following a successful strike, rapid exploitation is equally imperative to prevent the enemy from reorganizing or otherwise minimizing his losses. Conversely, failure to respond quickly to information concerning an impending enemy strike may spell our disaster. These are but a few of the myriad ways in which the importance of time will be magnified. Words like "fast," "quick," "speed," and "now" will inevitably dominate the language describing the techniques of conducting atomic warfare.

From the effects of atomic weapons we have made several generalizations on methods of fighting. These in turn have emphasized three important tactical factors: mobility, dispersion and time. If we consider that time—the need for speed—is a necessary element affecting *all* tactics, we can then concentrate our attention on mobility and dispersion.

First we need to decide how much mobility and how much dispersion we want. Then we need to determine what tactics best achieve that desired degree of mobility and dispersion.

HOW much mobility do we want? We want as much as we can get within these limits: We do not want it to lead

to easier detection, we want to retain the ability to do a certain amount of fighting en route, and we want the cost to be reasonable. Until our organization and equipment are changed to give our units increased capabilities for movement, we must increase mobility through what we now have. More trucks will move more men. Tanks and mechanized vehicles can be put to greater use. Helicopters and fixed-wing aircraft can be used to the fullest extent. Mobility should be limited only by the difficulty in supplying and maintaining this transport. Complete mobility of the infantry can be attained only by making personnel carriers organic to small units.

How much dispersion do we want? This is a more elusive question. On the one hand there is the desire to spread men out, thus making our forces less vulnerable. On the other hand, there is the desire to have men fight closer together in order to retain maximum control. The solution, necessarily a compromise, lies in retaining control by maintaining the currently prescribed distances between individuals within a unit while increasing dispersion by widening the interval between units. This raises another problem. For what unit level should increased interval be prescribed? Should it be at platoon, company, battalion or regiment? Or should it be at varying levels at different times?

This latter seems the most sensible.

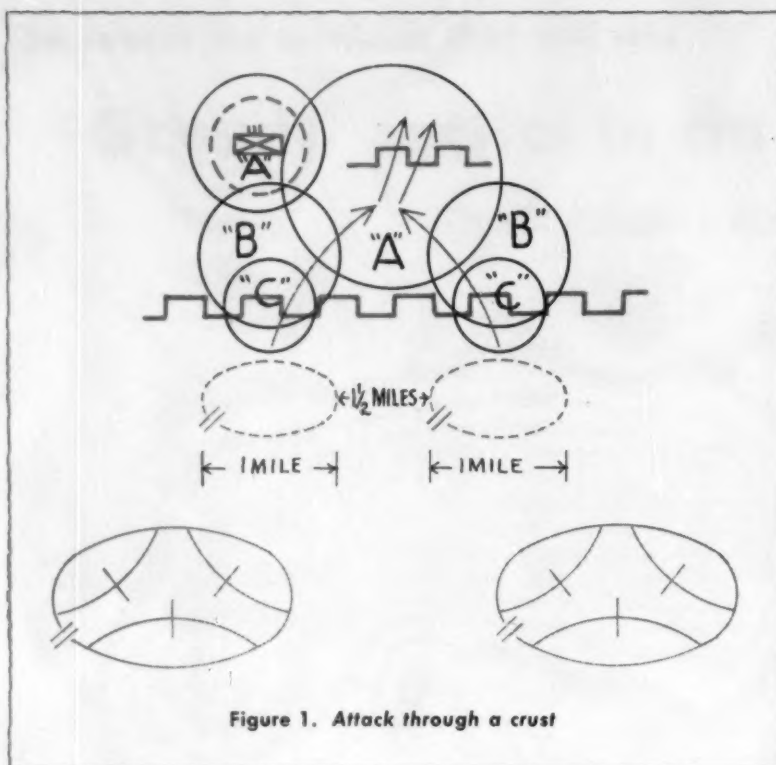


Figure 1. Attack through a crust

When out of direct contact with the enemy, units can be dispersed by increased intervals between companies or even platoons if the area is large enough and there is no requirement for immediate concentration. When in contact with the enemy (attacking or defending), I think increased interval beyond the point of mutual support between units can best be taken between battalions. This preference is based on the range of organic and supporting weapons involved, and on the range of radios with which the units must be controlled. Further, the battalion is the smallest unit with a staff to assist in command, and its current organization permits it to fight semi-independently. Since the battalion appears to be the best size unit to be considered as the basic fighting team, the remainder of this discussion will be primarily concerned with the employment of battalions. These battalions are visualized as operating semi-independently; within each battalion subordinate units do not go beyond mutual supporting distances; between battalions, however, intervals may be extended beyond mutual supporting distances.

WHEN WE ATTACK

In offensive operations, the tactical use of atomic weapons can be visualized in one of two general situations. In the

first situation we must break through a continuous, well-organized enemy defensive position with which we are in contact. In the second situation there is no continuous enemy defensive position and opposing forces are relatively far apart.

In the first situation, Figure 1 suggests several methods of using atomic weapons to facilitate breaking through continuous enemy positions. Atomic explosives can be placed on the enemy's rear-area positions or on his reserves. (Targets A, Figure 1). This will not necessarily assist in breaking through his forward positions or destroy his forces in contact, but will undoubtedly facilitate the stages of the attack following the initial breakthrough of the position. Atomic weapons can also be used to assist the rupture. This is feasible only if we are able to destroy the enemy's forces without endangering our own. Theoretically, we might do this by pulling our troops back until after the blast. As a practical matter, however, this would be both difficult and dangerous. Unless the enemy has been completely surprised, he will simply advance as our troops pull back. This will expose our troops to the hazard of being put to rout while moving back, or may force them to defend in more hastily prepared positions in the rear. Thus, the advantages of using the weapon to create

the initial rupture must be carefully weighed against the risks involved in placing the burst close to our own troops. One answer is to use relatively small yield weapons which would place maximum effect on the enemy but leave our forces in contact unharmed. (Targets C, Figure 1.) Another way of accomplishing the rupture is by using a higher yield weapon and moving its ground zero farther into the enemy position (Targets B, Figure 1). Thus the total front-line distance which is affected can be made to equal that of the lower yield weapon, with an additional bonus of partial destruction of the enemy's rear.

What deviations from present doctrine are necessary in the first situation? A study of Figure 1 will suggest a few of them. Widely dispersed battalions move to their respective points of attack at the last possible moment by the fastest means available without stopping in assembly areas. Stress is placed on prescribing axes of advance as a means of controlling direction of attack. The column formation becomes the preferred formation. Battalion attacks are conducted independently and rapidly. Seizure of intermediate terrain features is less important than maximizing the destruction and confusion created by the blast and seizing the final objective prescribed for the attack. During the attack, the range capabilities of our current weapons will result in less emphasis being placed on mutual support between battalions, and little if any emphasis being placed on physical contact between battalions. Because of communications limitations and difficulty of control, greater reliance is placed on initiative and skill of attacking commanders.

In the second situation (Figure 2), where limitation of contact to patrol action is assumed, most of the tactical concepts envisaged above still apply. Protection of our own forces is accomplished with greater facility due to the ease with which the smaller forces in contact can be withdrawn. Since this situation affords even more freedom of maneuver, greater emphasis would fall on command initiative and the speed with which units move forward.

In both of these situations there is an obvious need for stressing protection against enemy atomic weapons. Protective measures must be followed before, during and after an attack. In the latter case friendly troops must immediately adopt physical protective measures and must disperse to the maximum degree consistent with maintenance of control over the newly-won area.

THERE is a need for good intelligence, efficient alert systems, the best communications possible, and swift planning and execution. The importance of surveillance in the intervals between units becomes greater. The higher commander must assure himself that these intervals are covered in order that there be no voids in which any sizable amounts of enemy can remain undetected. The requirement for units and commanders to function independently and in accordance with an overall plan is likewise evident. In the first situation there is a requirement for smaller yield weapons which can be used close to our own troops. In both situations we can see the tactical value of using higher yield or megaton weapons either alone or in conjunction with smaller yield weapons. The use of these larger yield weapons is especially indicated in areas where enemy troop concentrations are suspected but cannot be pin-pointed. The integration of tactical air power with ground maneuver needs emphasis; it not only enhances the advance of the ground maneuver but helps provide timely intelligence and assists in protecting our troops from air-delivered atomic attacks.

WHEN WE DEFEND

The type of defense to be adopted in a war of atomic capability will depend upon whether the unit is ordered to hold a specific terrain feature or is permitted to exchange ground. In either of the two principal types of defense, position or mobile, it appears that the infantry battalion should again be considered the basic tactical unit.

In the first type of defense the battalion is part of an extended defensive position. It organizes a single terrain feature or a system of separate but related terrain features. As in current doctrine, a battalion can still be held responsible for a frontage not more than two miles in width. In a position defense, therefore, a division can defend a frontage of from eight to twelve miles.

THE mobile defense visualizes the defeat of the enemy by a combination of defensive and offensive actions. The enemy is canalized into an area of the defender's choice and is attacked by all available fires—both atomic and non-atomic. Where such action does not repel or completely stop the enemy his destruction is accomplished by offensive action, utilizing reserves and other non-committed forces that may be available.

Troops are disposed so that a portion of the force is used in security missions

Design Contest Ends 30 September

Time is getting short so enter the \$100 prize contest for the design of a seal for the Association of the United States Army now. Final entries must arrive at the Association offices no later than 30 September 1954. A postal card to the Secretary will get you a set of rules.

One hint to contestants—the accepted design will be the basis for ROTC medals, and possibly lapel pins, so there is a limit on the amount of detail the design can carry. In other words: keep it simple.

to warn of impending attack and to delay and disorganize the enemy, a portion of the force is used in holding organized positions to canalize the attacking forces into terrain favorable to the defender, and a portion of the force is held in reserve to be used alone or with other non-committed elements of the overall force to destroy the enemy by a combination of firepower and offensive maneuver (Figure 3). In this type of defense a battalion would occupy a position of from one to two miles, with intervals between battalions extending far beyond mutually supporting distance. Here the division

can defend a front from eighteen to thirty miles wide.

For both types of defense we need good intelligence, efficient warning systems, long-range communications, all-around protection, and emphasis on speed. The matter of surveillance in the intervals between units is of vital importance in the defense. The higher commander must assure himself that the enemy cannot infiltrate in these intervals in sufficient numbers to threaten the integrity of strong points, reserves, or critical installations. The higher commander must either provide additional means to the strong points which will allow them to cover these intervals or he must fill the intervals by means which he retains under his own control. While the methods adopted are largely a function of the amount of distance involved between the strong points, the method of solving the problem when the distances become great is one which will be difficult to achieve with our present organization and equipment. The methods of surveillance of the intervals require considerable study. An additional requirement exists for extensive barrier planning for canalizing the enemy into "fire sacs" where he will be forced to concentrate and hence become vulnerable to an atomic blow. This may be done by the skillful use of terrain, by the erection of

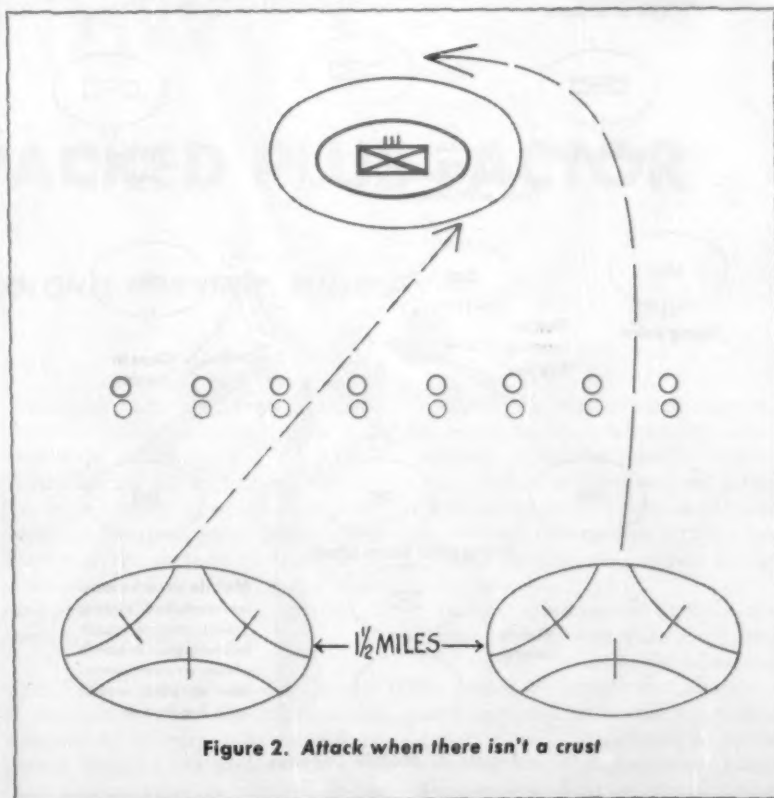


Figure 2. Attack when there isn't a crust

dummy positions or other deceptive measures, and by the use of mines and obstacles. In general, we need a concept of defense which strives to stop the enemy at precisely the place and time of our choice, rendering him vulnerable to an atomic counterattack.

AT this point we again ask the question: What deviations from our present defensive doctrine are necessary? That aspect of current doctrine least applicable is the "defense on a desirable frontage." This type of defense, built around two closely-positioned front-line battalions with the remainder of the regiment relatively close behind, lacks dispersive possibilities, and is totally impractical in atomic warfare.

Movement-to-combat and retrograde operations lend themselves quite readily to atomic warfare simply because they involve movement, and protection goes with movement. A detailed discussion of these operations will not be undertaken here. But it can be said that when such movements are effectively executed by semi-independent, controlled, mobile and self-sufficient units, properly dis-

persed, they are capable of winning an atomic war. Here, as in the offensive and defensive operations discussed above, only three major capabilities are needed by these units to enable them to achieve the acme of tactical performance: gaining and evaluating intelligence rapidly; having sufficient mobility for infantry units; and being supported by tactical atomic weapons rapidly and effectively.

TRAINING

Training, which increases the probability of success in any operation, becomes an absolute necessity in an atomic war.

Each soldier must have a thorough indoctrination in and understanding of the three major effects of an atomic explosion, and he must learn to protect himself from them. This is the best method of minimizing the effects of an enemy attack. One of its important results is the dissipation of fear caused by lack of knowledge about atomic effects, for fear of atomic warfare could conceivably do more damage to a unit than the physical effects of an atomic explosion.

Deception is a most important technique for insuring individual protection. Unfortunately we have underemphasized it. It needs revival at all levels. For the individual soldier, what is required is simply a stressing of camouflage and concealment. All positions and troop locations must be completely and cleverly camouflaged and concealed to deny the enemy information on which to base his selection of targets.

There must be extensive instruction in first aid. Present medical facilities are not provided in sufficient quantities to administer adequate first aid to more than a fraction of the anticipated number of atomic casualties. Up-to-date instruction must be given on the treatment of severe burns, the prevention of shock, and the stoppage of severe bleeding.

Training in erection and maintenance of hasty field fortifications must be re-emphasized. The great value of even the most rudimentary shielding from heat radiation needs to be fully understood. Even shelter-halves placed on tent poles will shield soldiers who are digging in and thus prevent casualties. The deep foxhole with overhead cover is a minimum requirement. For this, individual training in the use of explosives, engineer entrenching tools, and earth-moving machinery needs to be taught.

Other factors to be considered and emphasized in training are: night movement and night preparation for an attack; the use of fog and smoke to conceal troops and to protect them from the heat effects of the atomic weapon; individual and unit dispersion; the effect of weather on atomic blasts; and other general tactical implications of offensive and defensive use of atomic weapons.

IF we soldiers are to live up to our vowed responsibilities, we must face the challenge of the atomic age. We can neither duck our responsibilities nor panic in the face of them. We must seriously and thoughtfully go about the task of making necessary alterations in our tactical concepts, training, organizations and equipment. We who must adjust the tactics and direct the training should now be preparing for the time when the revised organizations and new equipment become available. We must not permit any lag in our thinking. We must proceed at utmost speed to exchange thoughts, ideas, and opinions and arrive at a meeting of minds. The ideas I have expressed here represent a point of departure, whether you accept them or improve upon them, apply yourself to them now. Time will be on our side in this race only if we use every fleeting minute of it.

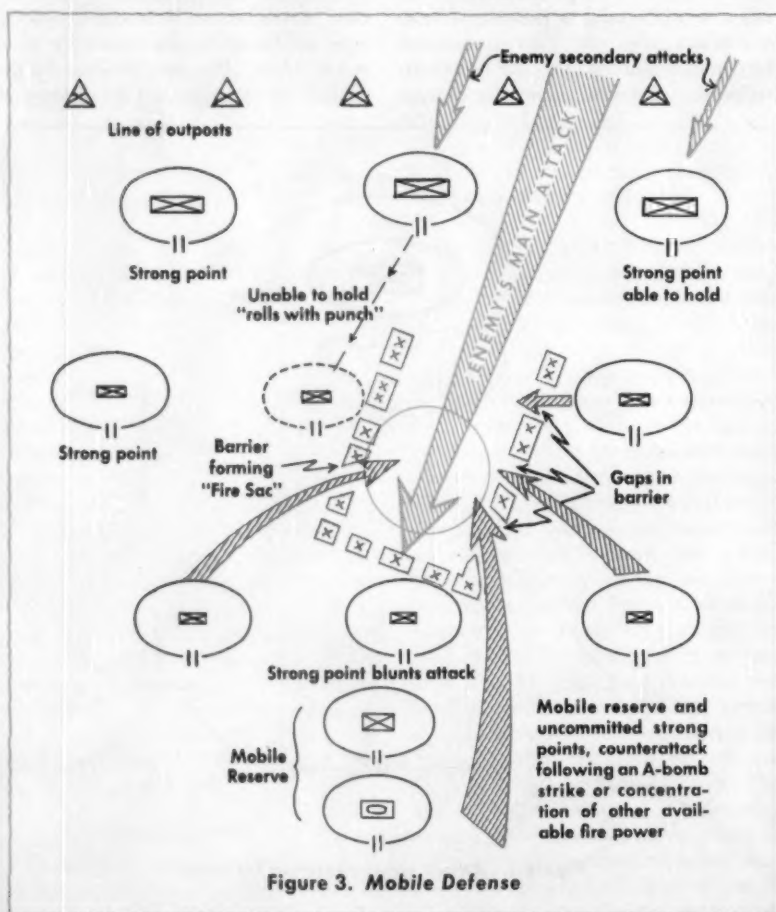


Figure 3. Mobile Defense

ESSAYONS

The Combat Engineer Is the Division's



POWER-PACKED PLUS FACTOR

COLONEL MARVIN C. ELLISON

IN every U. S. Army combat division there is a battalion highly trained in skills designed to advance our forces, impede the enemy's forces, and, when necessary, to fight as infantry with as much skill and fortitude as the proudest wearer of the Combat Infantryman Badge. This is the organic combat engineer battalion, an outfit that every experienced commander counts as a

heavy plus factor on his side when he compares the full power of his force with that of the enemy.

And behind that organic engineer battalion are other power-plus engineer outfits at corps and army. A full appreciation of the engineer potential available in the U. S. Army would make this plus factor much more effective. I hope to show why this is so.

PROPERLY trained and led, the engineer battalion as now organized and assigned to infantry, airborne and armored divisions can perform the engineer support normally required by the

division. With corps and army engineers furnishing engineer support for stream crossings, attack on heavily fortified areas, amphibious operations and actions where heavy reinforcements of engineers are required, the engineer battalion concentrates on supporting its own division to the utmost.

To fully appreciate the capabilities of combat engineers you must comprehend their mission: "to assist the advance of our troops, to impede the advance of the enemy, and to increase the comfort of our troops." In addition to normal missions, combat engineers are trained and armed to fight as infantry when

COLONEL MARVIN C. ELLISON, Corps of Engineers, has been a National Guardsman, an Army Reservist and is now a Regular.

called upon to do so. In the proud annals of the American Army some of the proudest are infantry actions fought by engineers.

It is during periods of combined training that a full appreciation of the worth of combat engineers must be acquired. For it is at this time, and not later in combat, that the efforts of the engineer battalion must be integrated with infantry, armor and artillery. Infantry commanders from platoon to division must be thoroughly familiar with the organization and equipment of the supporting engineers. Coordinated training can teach them the capabilities of the engineer units that support them.

Too often combat team training has included all units of the combat team except the combat engineers. This is sometimes due to the limited size of the training areas but is more often caused by a lack of appreciation of the importance of having the engineers take part in combined training. In the training phase combat engineers are usually underexercised in field operations and overworked in "increasing the comfort of our troops."

THE divisional combat engineer battalion has four line companies, permitting the normal assignment of one company in support of each of the three divisional combat teams. The fourth line company serves as division reserve and for direct support to the division artillery and division service troops. The airborne division's engineer battalion has three

companies rather than four, and each company is slightly smaller in size than the companies in the battalion of the infantry and armored divisions.

Combat teams formed around an infantry regiment are a formidable mobile striking force. But the mobility of such a force is in direct proportion to the available engineer support. In any advance it can be assumed that bridges will be blown and obstacles placed in the path of movement. The engineer company is trained and equipped to clear a way for the combat team. Every infantry field problem or map problem of battalion size or larger should "play" the supporting engineers. They are the people who will keep you moving.

Combat teams can gain much needed experience in cooperation and integration of effort by taking part in prolonged problems and maneuvers. Nothing takes the place of friendships made and cemented by mutual enduring of field hardships experienced in a typical combat team maneuver. A poorly prepared field order or a sloppy message in maneuvers will bring down the wrath of the Old Man, but the same mistake in combat may well bring down a rain of steel.

Infantry officers can learn a lot about combat engineers in combat team training but to gain even closer coordination it is better to give infantry officers short assignments to the combat engineer battalion. Combat team assignment of engineers should be planned so that normally the same units train together and

thus gain essential mutual confidence.

Engineer units are assigned in support rather than attached in order to provide the division engineer with flexibility of engineer effort. Except in unusual situations, the division engineer should retain control of the entire battalion, placing engineer support where needed. Conditions will often arise that require attachments of engineer units to regiments or battalions, as in amphibious or air-transported operations. When such operations are completed, the attached unit should revert to the control of the division engineer.

JUST what can a combat team commander expect from his supporting combat engineer company? The infantryman will know how to make use of the fire power in the engineer battalion. Those 145 M1 rifles, six caliber .30 machine guns, four caliber .50, heavy barrel machine guns and nine 3.5-inch rocket launchers look like a Christmas bonus to him. This engineer fire power is wonderful in a pinch but it should always be considered strictly as "mad money," to be used only when the alternative is a long walk home.

This is because an engineer company committed to infantry combat cannot perform engineering work until the commitment ends. If the situation calls for the attachment of the engineer company it will be under the command of the combat team commander and he can use it as he desires, but he can be more certain of success in the showdown if he has used it wisely and with a thought to its reason for existence.

The principal capabilities of an engineer company are revealed by its equipment. Normal combat engineer tasks are performed by squads and platoons. Each squad is mounted on a 2½-ton dump truck and has a carpenter set, a pioneer set and a demolition set. Platoon headquarters has a similar set of equipment.

An engineer line company can be expected to furnish nine well trained squads equipped to perform normal field engineering tasks. Company headquarters is equipped with a bulldozer and a motorized air compressor to back up the platoons and squads. Some of these tasks are: organization of a defensive position; supervision of tactical wire defense; laying of mines; removal of mines; repair of bridges; construction of trestle bent bridges; construction or repair of culverts; repair of roads; channelizing the advance by establishment of blank barriers and road blocks; construction of hasty shelter for the first aid station and

Engineers use miles of barbed wire. Here they are wiring in a minefield in Korea.





In modern warfare mines by the millions are used by all armies, and engineers detect and plant them. At left a combat engineer outfit of the 25th Infantry Division sweeps a road leading into Inchon, Korea; this was in February 1951. At right an engineer plants an antitank mine along a Korean road. This was in April 1951.

command post, and engineer reconnaissance.

COMBAT engineers of all echelons are schooled and trained in the technique of stream crossing. In the infantry division the engineer battalion is equipped with a fixed steel treadway bridge. In the armored division the engineer battalion is equipped with a fifty-ton fixed and floating bridge capable of spanning a maximum of 355 feet when constructed in a combination of a fixed and floating bridge.

Each company in the engineer battalion knows how to put up a bridge, but normally the job falls to the reserve company rather than one of the companies assigned to direct support of combat teams. This leaves the supporting engineer company with its regular assigned combat team to assist in the initial assault crossing and front line support in establishing a bridgehead. The critical zone in a stream crossing is the bridgehead or area on the far shore, the possession of which will deny the enemy observed artillery fire on the main crossing site. Once the assault echelons have gained the far shore the close support of the combat engineers is essential to continued success. Mine

fields must be located and lanes cleared and marked, and the road net improved to provide a rapid exit from the crossing sites.

All combat engineer companies receive training in construction of the Bailey bridge, which is not organic to the divisional engineer battalion but could be available from corps or army dumps.

Engineers purify the water you drink. This is a diatomaceous earth water purifier in use in Newfoundland.

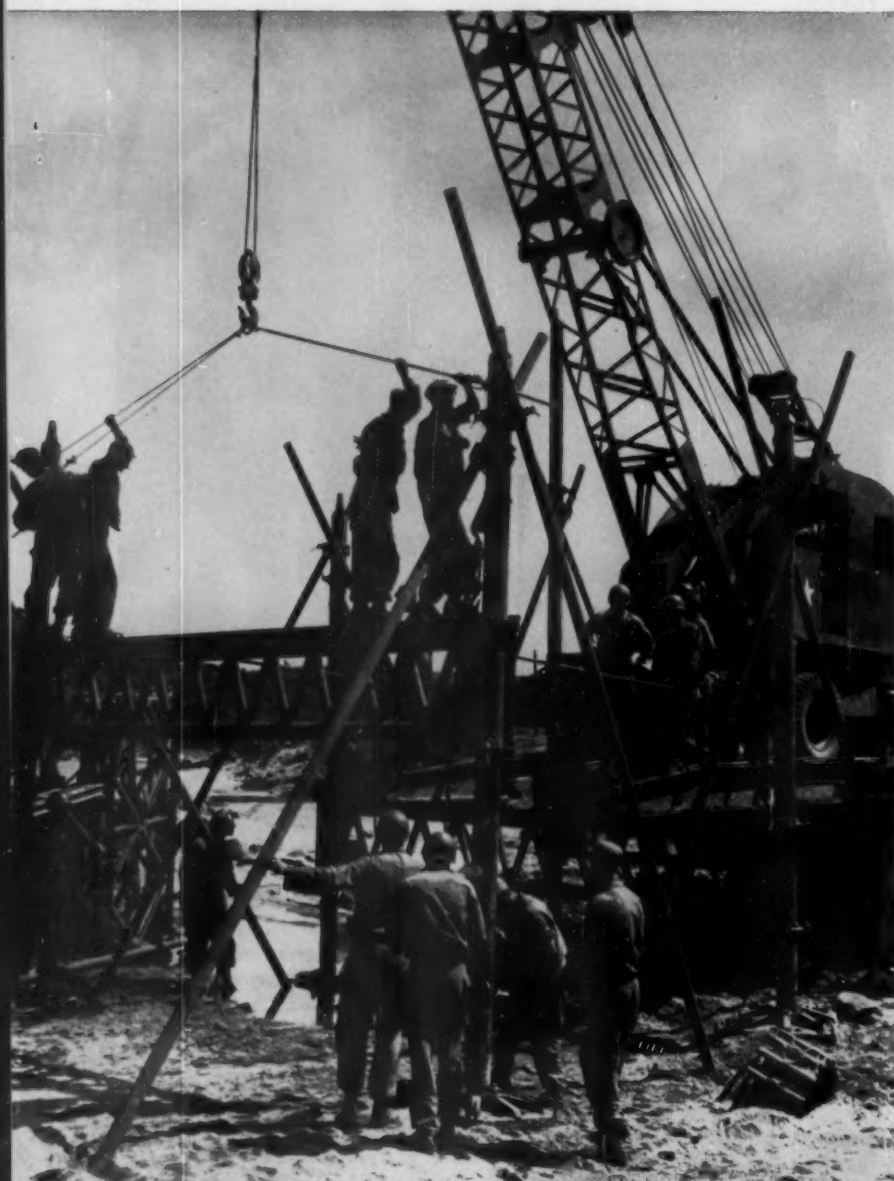


Construction of this type bridge will most likely be assigned to corps troops. Stream crossings which involve more than one division can be more certain of success if the corps engineers operate assault boats, construct and operate ferries, construct footbridges and the principal floating bridges within the corps' zone. This leaves the division engineer battalion free to put full effort into the task of supporting the infantry in breaking out of the bridgehead.

Training in stream crossing expedients should be conducted by each combat team under the supervision of the supporting engineer company. Tailor-made methods are often impossible and therefore infantry, artillery and armor should be trained in the many improvised methods that engineers know.

Combat engineers are especially trained and equipped to play key roles in the reduction of strongly fortified positions. This type of attack requires detailed reconnaissance of the fortified zone followed by rehearsals, terrain appreciations by the engineer assault party and supporting troops.

THE combat engineer battalion of an infantry division is equipped with



You name the kind of bridge you would like to have and the engineers can build it. Above, the 58th Engineer Treadway Bridge Company—an Eighth Army outfit—is putting in the last section of the foundation for a ponton bridge across the Hantan River in Korea. This was in August 1951. Below, the same outfit is moving in to swing a temporary bridge across the Han River. This was in March 1951.

four 35 GPM portable diatomite water purification sets operated by the supply personnel of the battalion. Each combat team is supported by a water purification team operating one purification set in its zone of operations. The fourth purification set is retained as a reserve or for supply of water to division troops. In a rapid advance, purification sets are leap-frogged forward to provide water supply to advancing troops.

Amphibious operations are supported by amphibious brigades and engineer units of corps and army. The division engineer battalion must be free to furnish close-in support of the combat teams as they move across the beach into dispersal areas or into assault of beach installations. The division engineers assist in unloading heavy equipment and supplies from the landing craft but are principally concerned with organizing dispersal areas for the division, removal of mines and construction of access roads required to get the division clear of the beach area. Combat engineers should be trained in the techniques of shore party operations so as to be prepared to assist shore operations in an emergency. Priority for landing of engineer equipment depends upon information as to requirements obtained by study of maps, aerial photos and intelligence summaries.

TRAINING of field forces continues to emphasize the importance of being able to air-transport any and all divisional units. The engineer battalion must know how to load men and equipment in standard planes for air movement. The establishment of an airhead in enemy territory will require that the combat engineers arrive early and with essential equipment to insure that the area is organized to protect supplies and support further operations. The division engineer should recommend a loading plan that will provide a high priority for landing of engineer personnel and equipment for an air-transported opera-



tion. The pay load must of necessity be boiled down to essentials. Except for the heaviest engineer equipment, the engineer company assigned to the combat team making the air move should arrive in the airhead shortly after the first elements touch down. Engineers will be needed at once to supervise laying of mine fields, establishment of road blocks and to repair access roads preparatory to breakout.

Engineer reconnaissance is coordinated and supervised by the reconnaissance section in battalion headquarters but all engineer troops are trained to make sure that engineer reconnaissance is continuous. Success of combat operations depends largely upon information gained through engineer reconnaissance and that, to a certain extent, is information that all combat commanders must have either from engineer sources or from other troops under their command. Combat engineers are especially trained to reconnoiter routes of communications, bivouac sites, mine fields, fortified areas, bridges, stream crossing sites, and unusual terrain obstacles, and report such additional information as required for the division engineer to fit in a pattern of information for the division Commander. Engineer intelligence is coordinated with division G2 and in addition to normal combat intelligence operations provides the necessary technical intelligence survey of captured enemy material.

THE division engineer serves as commander of the organic engineer battalion and as a special staff officer for the commanding general. He maintains constant liaison with members of the general staff by means of his assistant division engineer who is a field grade officer on his staff. The division engineer is an important member of the division planning staff and should be called upon for plans and recommendations to dovetail into plans formulated by the division staff.

Planning staffs sometimes fail to obtain recommendations from the engineer officer and this may result in plans that are doomed to failure.

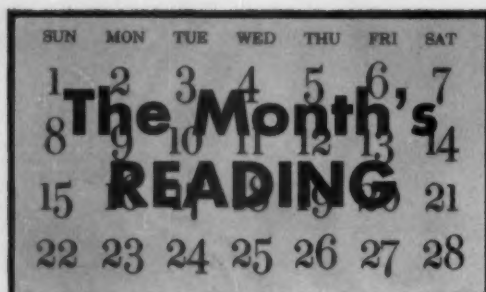
The combat engineer battalion must have highly trained specialists. Untrained men are no good to it until they are converted into topnotch engineer soldiers.

I must again emphasize that the plus factor that is the combat engineer battalion can be fully realized only if the engineer is integrated into combined training.



Combat engineers destroy as well as build. Above, a couple of them set a charge in a dike in Korea. This was in August 1950. And below, a bridge across the Han that was blown in November 1950.





Managers and Leaders

LT. GEN. GEORGE H. DECKER
Army Information Digest
June 1954

While it is easy to say that the Army should base its solution to management problems upon the latest approved methods prevailing in commerce and industry, especially where these closely approach civilian conditions, it must always be kept in mind that the Army is imbued with the doctrine that it is proper to sacrifice money, material or facilities when necessary to preserve lives. The Army, it is true, is engaged in many types of business, but it faces management problems more diverse and complex than those found in any single commercial firm. The managers of industry, for example, are rarely if ever faced with decisions that may mean life or death of thousands of individuals—or affect the actual security of the Nation.

By virtue of his role in the Army organization, the Army officer must be primarily qualified to lead men in combat. But he must also be able to provide effective leadership in non-tactical situations.

U. S. Learns from Turkey

GEORGE C. MCGHEE
Foreign Affairs
July 1954

The Turkish attitude is perhaps best shown by the reaction to the United Nations' request for help in repelling the aggression of the North Koreans. Turkey had at that time received no commitments from the Western Powers for her own defense, but on July 22, 1950, the Turkish Government announced that it was sending a brigade of 5,000 men to Korea—the first to respond to the appeal after the United States. Prime Minister Adnan Menderes stated at the time: "It is only by way of a decision similar to ours, to be arrived at by other freedom loving nations, that acts of aggression can be prevented and world peace can be safeguarded. A sincere attachment to the ideals of the United Nations requires a belief in this basic principle."

Relations between Turkey and the United States have developed harmoniously not only because both have the same basic attitude toward the issues of the cold war, but also because Turkey has no colonies or areas of special political or economic interest and has no desire to recover territories that once belonged to the Ottoman Empire. Hence she is able to take what might be described as a symmetrical attitude with respect to world problems. Some of our Western European

allies do have such areas of interest in Asia and Africa, and their policies toward them are superimposed upon common policies arising out of the cold war. The cross-currents of these sometimes conflicting ties in North Africa, the Middle East, Southeast Asia and China create problems in relationships with Americans which do not exist in the case of the Turks.

American understanding of the problem of dealing with the Soviet Union . . . seems now to have caught up with that of the Turks. The Turks have also shown us that it is possible to live in equanimity, without yielding, alongside an implacable enemy. They have been able to do this because they maintain a high degree of military preparedness and a strong national unity. "Why didn't you ask us about the Russians?" they frequently say. "We could have told you about them. Our attitude toward them did not change during and after the war because they did not change. Indeed, they have been the same for the hundreds of years that we have known them."

Rebirth of an Army

GENERALFELDMARSCHALL ALBERT KESSELRING
Kesselring: A Soldier's Record
William Morrow & Co., 1954

What was the Reichswehr itself up to [during the 1920s]? As an executive at the time I can answer that. The brains of the Reichswehr Ministry were concentrated on sifting war experience, incorporating its lessons in technical, organizational and educational programmes and framing new operational, administrative and technical directives. It goes without saying that "estimates" were a very important consideration. The main target was to keep abreast of technical improvements made by the Allies after the conclusion of peace and—when the time should be ripe—to resurrect the German army equipped with modern weapons. In training there were two main objects: first, to establish a prototype body of combined arms; and secondly, to train the private soldier for non-commissioned and commissioned rank. The political conditions prevailing dictated that our operations be restricted to "the defence of the Reich"—primarily, therefore, to the fortification of the eastern frontier and East Prussia and to securing them by a frontier defence force to be formed in an emergency. An effort was also made to close the obvious gaps in the Reichswehr by training ex-officers and NCOs and a limited quota of short-term volunteers. All in all, this glimpse of the work of the Reichswehr should suffice to show that life in the army was no *dolce far niente*.

Much of my time was occupied with the reorganization of the Ordnance Department. Here the fusion of the two branches, construction and supply, resolved the conflict of ideas that had previously subsisted between them. The General Staff's conclusions about the conduct of any future war formed the basis of clearly defined requirements in weapons, which were given by the Ordnance Inspectorate to the experimental stations for construction and to the Ordnance Supply Department for placing orders. These technical departments dealt directly with the industry. Trial pieces delivered by the factories were thoroughly tried out on the different experimental ranges of the Ordnance Department for serviceability. If they were passed, individual experimental units subjected the weapon to the severest tests in service conditions, any faults discovered being later eliminated by the supplying firms. It will be clear even to a layman that the interval between the placing of an order and the date of general issue to the troops ran into years, and in the case of heavy pieces, such as big guns, to six to seven years. A new type of gun, for example, was therefore sometimes already obsolete by the time it was issued to the army. For technical and financial reasons this was the right working method in peacetime. In wartime it had to be abandoned, though the departure from the established system had many repercussions and was often unsatisfactory to the forces in the field.

Soviet Power Grows

FIELD MARSHAL VISCOUNT MONTGOMERY
U. S. News and World Report
4 June 1954

From 1947 to the present time, the numerical strength (175 divisions) of Soviet ground forces has remained fairly constant. Nonetheless, significant changes have been made in favor of increased mechanization with sturdy and efficient modern equipment. Sixty-five divisions of the present establishment are tank and mechanized divisions. Moreover, the rifle divisions have been provided motorized equipment; they also now have organic tanks and additional artillery. Thus, the mobility and firepower of all Soviet divisions have been increased through the introduction of improved weapons and equipment.

The U.S.S.R., Eastern Germany and the East European satellites today have over 6 million men under arms. Approximately 4.5 million of these are in the ground forces. A high state of preparedness is maintained by a rigorous training program.

The number of satellite divisions has almost doubled since 1947, bringing their total to about 80 divisions.

The U.S.S.R. has a ready-made spearhead for a rapid advance into Western Europe. This spearhead is composed of 22 Soviet divisions in Eastern Germany, the bulk of these armored divisions with nearly a complete complement of tanks and self-propelled guns. Behind this spearhead there are an additional 60 Soviet divisions located in the Eastern European satellite countries and Western U.S.S.R. (This does not take into account satellite divisions.)

Their mobilization system is exercised periodically to in-

sure its effectiveness, and by M 30 (thirty days after mobilization day) the Soviet and satellite ground forces could number 400 divisions.

Loose Concepts

COLONEL GEORGE REINHARDT
"Atomic Warfare—Targets at Home and Abroad"
From a speech at Boston

Two other widely . . . and loosely . . . mentioned aspects of tactical atomic warfare are "dispersion" and "profitable target." Again a definitive solution is impossible but here we can state parameters of measurement. Both dispersion and profitable targets are relative concepts . . . like the principles of war. Both are meaningless until the specific situation is known. Then they attain the importance usually, and erroneously, conferred upon them as general formulas.

A British comment best epitomizes "profitable target." "Had Lord Wavell possessed a single atomic bomb in North Africa his most profitable target would have been Rommel's command car, when the Desert Fox was in it!"

Tactical urgencies may dictate using an atomic missile against a lone company deeply dug into a key location, while an assembled regiment, posted where it cannot influence the action in progress, remains unmolested.

The other fetish, dispersion, degenerates into absurdity when applied to deploying a battalion so it cannot be shattered by one atomic missile. Were that done the battalion commander could neither control nor communicate with his subordinates. His unit's combat effectiveness would disappear. Clearly atomic dispersion applies *between* units of battalion size or larger, not *within* those units.

Silver Bullets

LEWIS MUMFORD
The New Leader
28 June 1954

With the invention of the atom bomb, the United States stepped into a role on the international stage not unlike that of the Emperor Jones in Eugene O'Neill's play. We believed, officially, that the atom bomb made us invulnerable; but as we stumbled through the jungle of the postwar world, secure in this self-imposed delusion, we gradually lost our own sense of direction; presently, as night overtook us, menacing fears and specters arose in our own minds, making ever louder the ominous beat of the distant Russian war-drums. None of our wild random shots has caused these frightening images to disappear; and, at the end, we find that we have nothing left by way of an effective answer to our fears except the magic of a silver bullet: first the atom, now the hydrogen bomb. Perhaps the figure would be a little more accurate if one said that we have a whole cartridge belt of silver bullets, but, like so many of the magic gifts in ancient fairy stories, there is an unexpected penalty attached to their use: The result of using all of them might be to wipe out our friends and allies as well as our enemy. In O'Neill's play, you will remember, silver bullets killed the Emperor Jones. They were fired by savages who had copied his magic.

The Copter Cavalry

Raids the Eleventh Army CP

MAJOR BERT DECKER

ILLUSTRATED BY CHARLES M. BARNES

CAL STUART, CO of the Fifth Helicopter Cavalry Squadron, was excited. His men sensed it even if his face had his usual calm expression.

"We have a very intriguing mission," he told them. "I'll give you the facts first. Maps and air-photos will be here in a minute. Then we will work out the answers."

His twenty-three pilots, sprawled in the grass at his feet, all grinned at him. One muttered, "Intriguing! I'll bet!"

"Intelligence claims that the enemy's Air Marshal Bigwig and General Brain, his Chief of Staff, visited their Twenty-fourth Army Headquarters last night and left around noon headed north. We have a hunch they will next visit the Eleventh Army CP." He paused.

"That's right," he said, "the Eleventh. The Army CP and JOC that I have

been harping we should get a crack at. As you know, it is well beyond our range. Neither our jets nor bombers can get at it because it is in a deep, narrow canyon. Because we might catch their two Big Shots there, the old man has finally given in. We leave tonight and hit them at dawn.

"We'll all have to memorize routes in and out plus alternate routes. Also, we will have to stop for gas somewhere in enemy territory. Anybody got any ideas? It will have to be in this general area." He pointed to the map.

His second in command, Joe Sloan, put his finger at a spot on the map a couple of soldiers had fastened to a board behind the CO. "There's an enemy gas farm about five hundred yards from where those five roads come together."

"No! No!" said Stuart. "That will endanger our mission too much. We will haul our own gas in. I want a good, safe spot where we can set down and hide for a couple of hours. If we steal gas, they'll know we're going deeper. And how 'bout coming back?"

Double-Doug Davis, leader of Flight E, jumped up and hurried up to the map.

"I've got just the spot, Cal," he said, "just the spot. Right here, see, right here. It's an old tunnel, a deserted tunnel. Those Underground chaps I took in the other night use it for a headquarters

sorta. It's a dream—that I can tell you."

Stuart grinned at him. "You're sure it is safe, safe?" he asked.

"Sure, Cal, sure!" protested Doug, not even realizing he was being kidded. "It's safe. The bridges were knocked out. Bridges on both sides of it were knocked out months ago. No roads within miles of it. Wild. Hilly. Very wild. That's why those partisans use it. It's big. Very big. We could fly the squadron—the whole darn squadron right in." He stopped for breath.

"That's it, then," said Stuart. "Good boy, Doug. A Big Banana will haul in our gas. It can bring back prisoners if any. We will also take four other Bananas loaded with 48 Rangers. Half will be assault and demolition men, the rest snipers with telescopic sights. Two squadrons of our jets will stage diversionary raids, one on each side of the general area. Other squadrons will be keeping most of their jets busy while we are coming and going. One squadron will even be at our beck and call in case we need help. We really rate on this one. I'll give you call-signs later."

STUART pointed to a large air-photo. "Here's the layout. The Eleventh's CP and JOC are in mines at the very base of the canyon's west wall. You can't see the openings but you can see where the old railroad beds lead into them, here, here, and here. Notice the

MAJOR BERT DECKER, USAF, enlisted in the Army in 1942, was trained as a radar mechanic and then attended the Signal Corps OCS. He was assigned to Army Air Forces communications outfits and participated in the assault on Iwo Jima as the commander of the Shore Party of the 386th Air Service Group and earned the Purple Heart. He left the service in 1945 in the rank of major and returned in 1951. Since then he has served with NATO in Europe and is, he tells us, one of "Jain's Junior Jokers." His interest in helicopters is a long one, going back to the days "when almost everyone laughed at my ideas."

canyon is less than five hundred yards wide at this point. The floor is rough. Some of these big boulders are large enough to hide a copter behind. The Bananas would fit into these gullies and be safe. Down-canyon, that is, south—see on this other photo?—the canyon opens up into a broad plain.

"This is the key. See this spot high up on the west rim? That's a concrete observation post. We hope four of our rangers will get that just before dawn. Four of you—Flight B—will take them to within a couple of miles of that observation post at midnight. There is some remote radar and radio right next to it. The Rangers will knock that out too. We are hoping that with that radio out the JOC will be silenced, at least on its short-range fighter-control net. Intelligence can't locate their alternate site if they have one.

"The plan in general is this. The two Big Bananas with snipers will land on the east rim so they will be shooting across valley into the mines. Six of them will be moved down to the rim at the canyon's mouth to cover anything that tries to come in. We will go over the rim here and drop straight down on them. One Banana with assault and demolition Rangers will come down canyon from here, the other will come up canyon from the mouth. We'll blast the entrances and give them a chance to surrender. We're taking a lad who speaks their language and a PA system."

"We'll all go in at once?" asked Joe Nash.

"No! Flight F will be our reserve, and the only ones loaded with napalm. They will stay on the rim, take cover, perhaps in these trees, and wait my call."

The CO was still giving them details an hour later when five big helicopters swung into the clearing and cut their engines. Rangers began to pour out of four of them. They were a tough-looking bunch loaded down with equipment. A small, slight captain left them and walked briskly over to Stuart.

"Major Stuart?" he asked, saluting. "I'm Sam Brown."

"Glad to know you, Sam," smiled Stuart. "This is my Exec, Joe Nash."

"Hell-o Joe. Sir, we're all ready. But I would like to talk to the men who will be taking the advance party in to get that observation post."

"Good deal," said Stuart. "Who are you going to have for that detail?"

"I'll be one of 'em," said the captain.

"Yourself?" Stuart asked.

"Myself," said the captain.

"Oh," said Stuart.

"I feel it's an important mission."



The little man was almost belligerent. "It is," said Stuart drily. "We'd better get to business," he said, "we have a lot to talk over."

It was just dusk when the five Big Bananas took off. The squadron, twenty-four single-seater cavalry copters, slipped out of the hideout ten minutes later. They caught the Bananas just before they hit enemy territory and fell into pre-planned formations. They split into six groups. All but Flight E covered a Banana, each Banana leading a flight over a different pre-planned route. From ravine to ravine they dipped, whirled through railroad passes, skimmed up and down small rivers. Overhead, comparatively low, both enemy and friendly jets flew, a lot of them. Some ack-ack pounded in the distance but not at them.

They found the railroad tunnel easily. They flew up a small valley until they spotted a bombed-out bridge with their infrared and followed the railroad tracks to the big black blob which was the tunnel entrance. As Double Doug predicted, they flew right in, even the Big Bananas. As planned, all flight leaders and Captain Brown reported to Stuart at the entrance.

"Who's missing?" asked Stuart.

"Also, Flight F," answered Carl Lyons, flight leader of E. "He rolled out. I couldn't see what happened except a machine gun opened up on the Banana with tracers, Also, clobbered it, and another gun opened up on him. John and I silenced the second machine gun but it was too late."

"Do you know where that spot is?"

"Yes, sir, I have it well marked."

"Good!" said Stuart. "Tell me later. Have all pilots memorize it as an 'Avoid Spot.' Also, knows the return routes?"

"Yes, sir."

"Good! Maybe some of us will spot him tomorrow night returning. Captain Brown, please have your men help gas-up, except those being used for security guards."

"I've already given the order, Major."

"Thank you. Lyons, you will take my number four with your flight. I want at least four copters loaded with napalm. I'm glad we brought that napalm in the Banana or we'd have lost one already."

"Yes, sir," said Lyons. "I'll tell Four."

"We have hot coffee," said Stuart. "Let's get back in a Banana where we can have a little light. This way."

Back in the Banana, they were sipping coffee and the Ranger captain spoke up. "I have one question." He was looking at Stuart. Stuart just raised his

eyebrows and kept sipping his coffee.

"Why do you have the Bananas go first?"

"That's a good question. It took us quite a while to realize that that was the best way. The idea is this. The element of surprise is the most important factor. You are low to the ground, the engines are comparatively quiet, and you are moving right along. The first copter is usually on a person and almost gone before he realizes what's happening. If he gets a shot at whoever is first, it is usually a go-away shot. Notice that tonight we lost a copter which was second in line, not the Banana which was first. That is in spite of the fact that the Banana is a much bigger target, can't weave and duck like a copter, and has no fire-power. They don't like to shoot at us when we are shooting at them. Moving, we're harder to hit than they are, and they seldom have a floating sight like we do. Our fire is just more effective. However, it's just the opposite to infantry. We seldom lose the lead man. It's our tail-end Charlie that gets shot up the most." He went on, explaining copter tactics. The others sipped their coffee and listened.

At 2330 hours, Flight B, Captain Brown and his three Rangers, were ready. Brown and the Rangers had blackened their faces. They wore sneakers, had wicked-looking knives, .45 automatics, and tommyguns.

At 0145, Flight B returned, fifteen minutes late. Stuart was fretting. "What caused the delay?" he asked as soon as Mike reported.

"We were jumped halfway there," Mike said. "No matter what way we ducked, someone else cut loose at us. We were so busy for a while we got lost. Scattered, naturally. Joined up at the objective. Brown has a slight wound in the leg. I bandaged it; suggested he come back. He just growled, 'I rank you,' so we took off. Came back another way."

"Is that all?"

"Yes, except I had to go up to a thousand feet once to get a quick radio bearing."

"What?"

"Gees, Major, they knew we were in the area with all that shooting. It was over twenty-five miles from here," protested Mike.

"Damn!" said Stuart. "Just what I was afraid of. I hope they don't alert the Eleventh. Did it ever dawn on you that the lads that shot at you might not bother to phone in, but that the radar that picks you up automatically reports to the JOC?"

Mike didn't bother to answer that. After a long uncomfortable silence, Stuart growled.

"Okay, okay, good work otherwise. Try to get a couple of hours of sleep. Think, next time. You're a flight leader!"

THE whole outfit pulled out an hour before dawn. Again the different groups took different routes. Stuart heaved a sigh of relief, when he saw the slight, small figure of Brown standing on the round concrete top of the observation post. Brown's arm was in a sling but he waved them on through the morning mist with his good one. "I thought he was wounded in the leg!" thought Stuart as he started to look around for the rest of the squadron. As he looked they materialized out of the mist. One flight was missing. It had to be Flight F because all the Bananas were there. He had sent their Banana with E when F had loaded their napalm. Well, F is my reserve—if they get here. No use waiting. The squadron was forming on him fast. Out of the corner of his eye he saw a Banana pick up Brown and his three Rangers and head south for the canyon's mouth. Stuart took the squadron over the rim, right down through the soup. The engines were quiet at quarter throttle. It was eerie, that drop. Stuart's tummy was up around his throat somewhere.

They broke through the ceiling after dropping less than a hundred feet. The canyon floor came up fast. Stuart spotted a mine opening but no signs of life. One of the copters in Flight C opened up with his thirties but Stuart couldn't see what he was shooting at. Two more copters opened up. Stuart saw a running man cut down. He glanced up canyon and saw the Banana coming down low. The Rangers already had the door open. No sight of Brown from down canyon.

Three men charged out of a mine opening. They tried to stop but a copter cut them down in their tracks, flew over their bodies, and slammed his whole eight rockets into the opening. Stuart hovered and watched the other openings getting the same treatment. The Rangers were piling out of the Banana. Stuart glanced down canyon. Where was Brown? Something must be wrong.

"Fool One to Fool Two and Three. Check on that Banana coming in the canyon mouth."

The two copters darted down canyon. "Ranger Ten to Fool One. Sir, this is Ashley on the rim with five men. There is an ack-ack outfit up here about 400 yards from us. Four guns, so there must be thirty or forty men up here some-



where. With the racket you guys are making and the way this fog is lifting, we may be having trouble soon. One of our boys just sniped their guard."

"Roger," snapped Stuart. "Fool One to Banana One. Get all your snipers back up on that rim to Ashley."

"Banana One says 'Wilco.'"

"Fool One to Fool Six. Check both rims for any signs of other ack-ack outfits."

"Fool Six to Fool One. Wilco!"

"Fool Two to Fool One. Brown's Banana crashed. A machine gun here did it. We clobbered it from the rear. Most of the Rangers are clear. Captain Brown wants . . ."

Brown's voiced interrupted.

"Send me the other Banana, Stuart. I've got three wounded!"

"Wilco, Brown! Banana Three, did you hear that?"

"Yes, sir! We'll get them!"

Stuart grinned to himself. "That little cocker Brown, can't wait to get into the worst of it," he thought. He watched Fool Two take Brown right up to a mine opening where some of the Rangers were lugging in demolitions. As he watched, a Ranger slumped over holding his leg and everyone jumped away from the entrance. He could see Brown yelling and

waving his arms. A big Ranger with a flame-thrower came trotting up, angling to get to one side of the entrance.

"Fool Six to Fool One."

"Report, Fool Six!" snapped Stuart.

"I spotted another ack-ack outfit. It's about two miles north of the observation post, a mile off the rim. No activity."

"Hide yourself, watch it from the ground. Report any activity."

"Wilco!"

The Banana from the mouth of the canyon was returning. Rangers poured out and joined Brown's group which was heaving demolitions into the entrance.

"Sir," Ashley's voice broke in. "This ack-ack outfit is pulling out! My scout located their quarters back in the woods. They are headed out on the double, south."

"They're not pulling out! Someone from the CP must have phoned them. They are trying to get down around and in the mouth of the canyon. Follow along on top of the rim and lay sniper fire down in them when you can."

"Yes, sir, out!"

"Fool One to Fool Three. Are you still at the mouth of the canyon?"

"Fool Three, sir. Yes, sir, I am. Fool Two told me to cover this Ranger taking care of these wounded."

"Fool One to Banana Three . . . Banana Three!"

"Banana Three, sir."

"Pick up those wounded at the mouth of the canyon and get them up to the rendezvous on the rim. Fool Three, you cover. There is an enemy unit coming around from the east on foot."

STUART's was the only copter hovering. The rest of the squadron were perched all around the canyon, their machine guns pointed at the mine openings. The Rangers seemed to be having their own way at two of the openings, lugging in demolitions as if they were on a picnic. They were in the third one but they were going in and out cautiously in rushes as if some fire were still coming from inside somewhere.

"Fool One to Fool Nine and Flight C."

"Fool Nine to Fool One."

"Did you hear me talking to Ashley about that ack-ack outfit?"

"Sir, yes."

"Take your flight up over the rim and hit them once from the rear. Once only. Use channel Two for communications."

"Wilco!"

"Ashley, did you hear that?"

"Yes, sir."

"Can you see any of them from where you are?"

"No, sir, but our men are scattered along the rim for almost a mile and they are getting a shot off once in a while. They don't waste bullets on nothing."

"Good. Ashley, get one man up high to keep a good watch far to the south. There is a tank farm down there somewhere."

"Yes, sir. Sir, Flight C just went over. One of our men is pointing out the enemy for them. Gees! They're really scatterin' 'em. Our lads are getting some open shots at 'em too. I don't think you have to worry much about this bunch."

"Good, Ashley, keep a watch south. Out!"

Stuart looked at his watch. 0423. Only seventeen minutes ago since they came over the rim. What's holding up Brown? He lifted his copter over to the mine opening where he had last seen him. He cut his motor and leaned out.

"Where's Brown?" he yelled.

A Ranger standing by the entrance dabbing at a bloody forehead peered into the entrance.

"Brown!" he roared and gestured. Brown came limping out. "He is wounded in the leg," thought Stuart, "and the arm."

"Gees Us! Stuart! We wrecked the JOC and cleaned out the other two openings but there are some jokers in here, a big bunch we can't get at. Get that PA system down here and the lad who speaks their lingo. They'll either surrender or we'll bury them alive." Brown turned back to the mine.

Stuart gave rapid orders.

"Ranger Ten to Fool One."

"Yes, Ashley."

"There are two tanks coming up a ravine about a mile from the canyon mouth. Two trucks of troops are following them about two hundred yards. That ravine is east of the canyon mouth. They will be on you in three or four minutes."

Stuart wondered if his reserve squadron had arrived.

"Fool One to Flight F. Did you hear that?"

"Fool Twenty-One of Flight F. Yes, sir. Shall we napalm them?"

"Drop over the rim on them as they come into the canyon. Ashley, have your snipers make those tanks button up so they can't see. Stop those trucks now, Ashley. Your men should be able to hit them at a mile from your height. Use channel Two for orders, Fool Twenty-One."

"Ashley here, sir. Sir, there is also something moving far to the south. Can't quite see what it is, trucks or tanks

or something. Sir! There's enemy jets overhead too."

"Damn!" swore Stuart, "I hope Flight F heard that." He glanced at his watch as he switched on his long-range radio. It was 0429.

"Fool One to Control X-ray."

"Control X-ray to Fool One."

"Execute Plan . . ." Stuart almost had his ears torn off as the enemy jammed his long range frequency.

"I wonder if he got my execute," thought Stuart as he switched to his FM short-range band. "He should know damn well I wouldn't call unless I wanted help." He switched to channel Two just in time to hear Flight F going into action.

STUART started to lift his copter. He looked south and saw the two copters dropping over the rim of the canyon. They were dropping like stones straight down. He couldn't see the tanks so he gunned his copter to climb. He thought he saw a napalm bomb start to drop when a jet plane zoomed by from the north missing him by five feet and leaving him a nervous wreck fighting for his copter's control in the terrific back-wash. "My god!" Stuart recognized Fool Four's horrified voice. He could see black napalm smoke billowing up from the canyon.

"Fool Four, report!" he cried.

"That jet crashed headlong into Carl. Just a second after Carl got his tank. He only missed me by three feet. They are scattered all over the canyon."

"Fool One's to all Fools. Stay low. Get behind a rock if possible. They will be sending another through here for a look see when that one doesn't report. All even Fools, point your weapons up canyon. All odd Fools, point your weapons down canyon."

"Ranger Ten to Fool One."

"Yes, Ashley?"

"There are both tanks and trucks to the south. About three, maybe four miles."

"Watch 'em."

"Yes, sir, your copters shot up those two trucks. Got 'em burning. The copters are coming back into the canyon. Plenty jets overhead."

"Watch those jets. If one starts a run on the canyon, let us know."

"Yes, sir!"

Stuart looked at his watch. 0433. Where the hell was Brown? Those tanks would be here in five or six minutes.

"Sir! sir! Ashley here. A jet is coming in again from the north."

He had no sooner heard Ashley, than Stuart saw the jet. It was coming down

canyon about a hundred feet high. Stuart didn't have time to get into action but the jet ran into a hail of fire from the other copters. It blew apart in mid-air and crashed to the canyon floor in a long burst of flame about 300 yards.

"They won't send any more!" thought Stuart. "They are not that crazy." He looked over at the mines and a Ranger dodging towards him. He leaned out of the copter. "Where's Brown?" he yelled. "Tell him tanks coming." He looked at his watch. 0437. "Tell him he's got two minutes, that tanks are coming and we only have two napalm bombs left."

"Fool One to Ranger Ten."

"Yes, sir," said Ashley.

"How far are those tanks?"

"About two miles, sir."

"Any jet coming from the south, low?"

"Can't see any, sir."

"When those tanks get close, make them button up. You two with the napalm!"

"Yes, sir?"

"Get up on top of the rim. We'll use you one at a time, that will slow them down. The first one might even stop them cold. They're not that tough."

"Wilco."

NOW where was this damn fool Brown? Better get the Bananas down here and start picking up Rangers.

"Ashley?"

"Yes, sir."

"I can't see any jets overhead. Can you?"

"No, sir, . . . none overhead . . ."

His voice grew excited. "There are some coming from the south, low. I think they are . . . sir, they are making a run on those tanks. Oh boy! They're napalming the hell out of them."

That was it. Five minutes later Brown strutted out of the mines with four high-ranking officers walking in front of him. They had too many prisoners and had to leave about thirty behind. They were back at the tunnel by 0615. They lay around all day and sneaked home.

Stuart always wondered why that second ack-ack outfit never got into the act. Even if Brown cut their phone lines when he cut all the wires near the observation post, they should have heard the racket. Maybe it was just too early in the morning. All in all, it was a good jaunt. With the JOC buried, the enemy's air defense should be poor for several weeks. Should be able to figure some more interesting jobs. "I wonder if Intelligence knows where a juicy enemy army group headquarters is located," he mused.

CAREER MANAGEMENT AND YOUR FUTURE

No. 12 *Selection for Senior Military Schools*

MANY officers who visit the offices of the Combat Arms Career Branches have a keen and understandable interest in the way we select students for senior service schools. It is apparent from their questions that they generally have an erroneous impression of that process. This article will discuss the specific method by which infantry, artillery and armor officers are selected for attendance at schools of the levels of the Command and General Staff College, the Armed Forces Staff College, and the War Colleges.

ALL officers should appreciate that the Army's school system is limited by time and money. Fewer than fifty per cent of all combat arms officers can be accommodated at the Command and General Staff College and of those who graduate from this school, less than half can expect to attend top military colleges. This means that many able officers will not be able to receive such schooling, but it assuredly does not limit the mental or practical development of such officers. It has been proved again and again that selection criteria have never been perfect, nor does the present Career Management organization expect to ever achieve such perfection. Officers should not become discouraged and unhappy because they are not selected to attend one of our top schools. There are many examples that support this statement. A sizable number of general officers of World War II were not among those who had the advantage of privileged school training.

Basically, the selection system is predicated upon the following principles:

- An officer is required to compete only with his contemporaries. To facilitate such consideration, officers are divided into basic year groups. These year groups are delineated in the case of Regular Army officers by their basic date of rank as published in the Army Register (certain readjustments are made in the case of competitive tour officers). Reserve officers are segregated into year groups by years of active commissioned service.

- The individual's record speaks for

itself as regards broadness of his experience and manner of performance. It is assumed that all officers want to attend these schools so all records are considered regardless of whether an application is made. Special recommendations are carefully evaluated but ultimate favorable decision depends upon demonstrated merit as indicated by the overall record.

- Fair, unbiased, consistent consideration is given each officer.

- Annual review at various echelons within the Department of the Army insures that selection lists are accurate and appropriate.

- Each eligible year group is given a "fair share" of a branch quota. This share is commensurate with the strength of the year groups, considers the timeliness of the schooling, and is intended to maintain the maximum sized reservoir of school-trained officers.

ACTUAL selection in the branches is made with consideration for the following weighted factors: (1) command duty; (2) staff duty; (3) instructor duty (includes civilian component and certain MAAG and mission assignments); (4) combat experience; (5) troop experience (branch qualification); and (6) Overall Efficiency Index. The order of arrangement of the above factors is not significant.

In recognition of the fact that declared specialists are at some disadvantage with regard to such factors as command and troop duty, provisions exist for comparison of specialists among themselves.

A small portion of the quotas for Army War College and Regular Command and Staff Officers Courses are designated for Reserve officers, with final competitive selection giving consideration to the above weighted factors and civilian experience in fields of value to the Army.

Normally three times the number of officers needed to fill a school quota are tentatively selected. Such selections are based upon the order of merit derived from scores obtained from the weighted factors, except that unusual achievement and special factors can be the basis for

recommending changes in the simple mathematical listing. The selections are then arranged in order of merit.

The next step in selection is for each branch list to be reviewed by the branch chief, after which the recommended order of merit is submitted to Chief, Career Management Division, for approval. Once the lists are approved, the availability of individuals must be determined. There are several principles related to availability which are considered:

- A nonstudent tour (usually three years) must normally be served between schools.

- Curtailment of overseas tour for the purpose of attending the Command and General Staff College is done only under exceptional circumstances.

- Completion of at least one year, and normally of two years, in current assignment is required immediately prior to school attendance, except for interim assignments en route to school.

Final approval of lists of officers to attend a given course is made by Chief, Career Management Division, TAGO, for Command and General Staff College and Armed Forces Staff College level courses; and by the Army Chief of Staff for War College level courses.

IN the implementation of the above system, the Career Management Division seeks to do two things:

- (1) Insure fairness and impartiality in the treatment of each officer. Final selection to be based on demonstrated performances of duty unaffected by bias or personal considerations.

- (2) Select for further schooling those officers whose potential service will be of maximum benefit to the Army.

Any method that seeks to conform to the above standards must be flexible and constantly under study. Provisions exist for continued study and revision as required. The ultimate objective of the entire system is to provide in time of peace the best possible training of key personnel who it is expected will, in time of national emergency and crisis, provide the top leadership so vital to victory.

Getting a center bull by aiming at six o'clock is like trying to hit the head of a nail by watching the hammer handle

BULLS or HALF-BULLS

LIEUTENANT JAMES D. PENDLETON

Coach and pupil on the firing line



LET'S look at some of the principles we teach the U.S. rifleman and see what we can find. Take the new soldier as he comes into the Army. His entire life is undergoing a change and he is pretty bewildered. He doesn't especially want to be in the Army, but, since it's a job everybody has to do, he's willing to do his job.

Shortly after he enters the service, the new soldier is introduced to the M1 rifle. He's going to be an infantryman and shooting that rifle is going to be his number one responsibility. So he takes the rifle and cleans it and learns how it functions and then he is sent out for preparatory marksmanship training.

His first step is sighting and aiming. He is told that to align his sights properly he must have the tip of the front sight blade centered vertically and horizontally in the rear sight aperture. Then he is taught that when aiming at the bull's-eye he must take the correct sight picture by placing the bull's-eye on top of the front sight blade so that it looks like an apple sitting on a fence post, aim at six o'clock on the bull.

Somewhere in the back row of the preparatory marksmanship class we find our new soldier. He is a young man who has been shooting all his life outside the

LIEUTENANT JAMES D. PENDLETON, Infantry-USAR, recently completed a two-year tour of active duty during which he was an instructor in small arms at The Infantry School.

Army and he has a question. He raises his hand. "Why do you aim at the bottom of the bull's-eye?" he asks the instructor. "I thought we were trying to hit the center of the bull."

The instructor tells him that it is done so the shooter can take the same sight picture for every shot; the rifle will be zeroed so that the bullet will hit the center of the bull's-eye when the firer aims at six o'clock.

And the new soldier says, "Oh, I see. The rifle shoots higher than you aim and you have to aim at the bottom of the bull in order to hit the center."

The instructor says that the student is about right, but that it will be covered in detail when the class gets to sight adjustments.

SO they continue through training until they get to the step on effect of wind, sight changes and use of the score card.

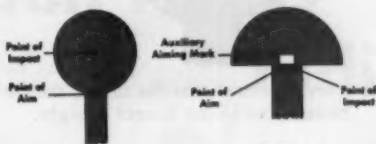
The instructor tells the class that "hold off" or "Kentucky windage" went out with the muzzle loader and that the sights on the M1 can be adjusted for varying winds and ranges so the firer can always aim directly at his target and hit it. He tells the class that one click of either elevation or windage will move the strike of the bullet on the target as little as one inch for each 100 yards of range.

Then, amid windage formulas, our new soldiers are taught how to call their shots and how to zero the M1 so that they can hit the center of the bull by aiming at six o'clock.

As the class comes to an end, our new soldier asks one more question: "Sir, you said that we don't use 'hold off' or 'Kentucky windage' with this rifle, but it seems to me that by aiming at six o'clock on the bull we have a six to ten inch

hold off for every shot."

"Of course we could zero to point of aim," says the instructor, "but, if we aimed at the center of the bull's-eye, we couldn't see the black front sight against



U.S. Bull's-eye Canadian Half-Bull's-eye

the black bull. We zero the way we do so that we can see the front sight clearly and take a consistent sight picture."

"I guess it's all right when you have a big black disk, but when we get into the field, I don't think people will like the idea of aiming at one point you don't want to hit in order to hit another point you do want to hit," the soldier says. And he sits down, but we don't forget him. For he has grasped immediately a paradox which has become inherent to our marksmanship training: with none of the small arms of the U.S. Army is the soldier trained to aim directly at his target. He is trained always to aim at a point several inches below the point he wishes to hit.

If all firing were done on the known distance range at standard size targets, it would make little difference whether or not we use a round bull's-eye, but this is not the case. Targets in the field are of varying sizes and at varying ranges. A firer cannot always make an accurate estimate of the hold off for which his rifle is zeroed. In most cases he will not even consider it.

Of course, in range firing at the A or B type target, aiming at the bottom of the circular black bull enables the firer

to take a standard sight picture and to see the front sight clearly, but what iron law requires us always to fire at a circular black bull's-eye? It seems that method has grown out of proportion to the objective. The Canadian manual, *Shoot to Live*, when speaking of the black disk bull's-eye and the six o'clock aiming point says, "[it is] just as if you hoped to hit a nail on the head with a hammer and watched the hammer handle instead of the nail head." A little exaggerated, perhaps, but psychologically accurate because a firer naturally wants to aim at the point he is trying to hit.

The Canadians have found their solution in the half-bull's-eye. The scoring area of the bull's-eye is the same, but only half of it is in black. This enables the firer to take a consistent sight picture and allows him to follow his natural inclination to aim at the point he wishes to hit. An *auxiliary aiming mark* has been added in the center of the horizontal line so that firers can get better sight alignment and a more clearly defined sight picture. The rifle is zeroed to the point of aim.

Such a target as this better enables the beginning shooter to perform an important part of his marksmanship training: *calling his shot*; that is, being able to tell where the shot should strike the target according to the sight alignment and

Aiming



sight picture at the moment the weapon fires. If a firer can learn to call his shots, he can discover his own errors and correct them, he can make necessary sight adjustments easily and accurately, and he is well on the way to becoming an excellent shot. However, with the black disk bull's-eye, calling a shot is one of the most difficult things for a beginner to learn. Frequently students can tell where the front sight blade was at the time the weapon fired, but they forget that the bullet strikes above the point of aim. Even after extensive instruction on calling shots, a large percentage of students will persist in calling their shots at the point of aim.

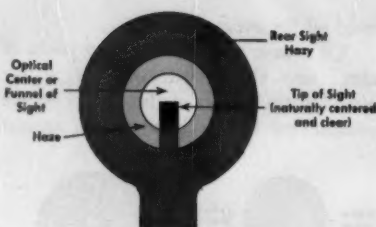
Since it is only natural for a firer to aim at the spot he wishes to hit, the students revert to this natural tendency in the majority of cases when calling the shot except when there is the ideal of perfect sight alignment and perfect sight picture. And sometimes, even when this ideal situation exists, many students will persist in calling that shot at six o'clock on the bull instead of center bull. It is difficult to see any real advantage to be gained in requiring soldiers to deviate from their natural tendencies when it is unnecessary.

Even old army shooters will admit that in firing at field targets it would be better to zero a weapon to point of aim. But it isn't taught. And, even if it were taught, why should the new rifleman have to learn two methods?

Known distance firing at a circular black bull's-eye is stereotyped training designed to make better known distance marksmen, and once the firer is taken away from the stereotyped situation, regardless of his experience or his ability, he returns inadvertently to his natural inclination, nature's logical method of aiming at the point to be hit.

On the M1 rifle the sight is the aperture type sight designed to take the utmost advantage of all natural phenomena. When using this type sight, the firer looks through the aperture and not at it, the principle being that in searching for an object through a circular opening, the eye automatically and naturally becomes focused in the *optical center* of the field of vision. Vision is concentrated into a funnel naturally and perfectly centered without necessary conscious effort on the part of the firer. Around this *funnel of sight* the field is hazy. When the firer's focus is on the front sight blade, the front sight becomes naturally centered in his funnel of sight.

Now, to derive maximum benefit from



It is only natural that the target should be centered in the funnel of sight.

these natural phenomena, it seems only natural that the target also be centered in the funnel of sight. When the firer is required to hold at six o'clock on a circular bull's-eye, the target is, of necessity, placed high and it is no longer in the optical center of the funnel of sight.

But, in direct antithesis of the six o'clock aiming point principle as taught on the known distance range, when firing at field targets, the soldier is taught to aim at the *center of mass*—but without zeroing to point of aim.

In using the Canadian type bull's-eye

on the known distance range, the entire target, bull's-eye and frame, can be perfectly centered in the cone of sight. The weapon can be zeroed to point of aim and the principles learned on the known distance range can be carried over directly into the field.

WE come back to the natural tendency of a firer to aim directly at the point he wishes to hit. To help him centralize that point, the Canadian soldier is given an aperture sight which helps him center his points of interest in his cone of sight, taking advantage of all natural phenomena in the optical center of his field of vision. But as the U.S. soldier is trained, he is required to use "hold off" with a weapon capable of pin point accuracy.

Many of our soldiers are "expert" on the range, using the black disk bull's-eye and a six o'clock aiming point, but are we getting maximum effectiveness and efficiency through teaching them that way?

Carbine on the firing line



Assault Fire Is Specialized Indirect Fire

LIEUTENANT COLONEL JOHN C. FRALISH

WHAT is assault fire? It is not, as many persons seem to believe, the same thing as direct fire. Assault fire is a special technique of indirect fire to attain pinpoint accuracy for the destruction of targets such as pillboxes, gun emplacements and cave entrances. All combat officers should have an understanding of the techniques involved in assault fire.

First of all there are some basic elements in assault fire that must be considered. Firing is conducted at short ranges from defiladed positions, and the gun-target range must be sufficiently short to make successive hits on the same portion of the target a possibility. In addition, the target (normally a cave, pillbox, or other fixed fortification) must have sufficient vertical dimensions; targets without significant vertical dimensions or on flat terrain may be more suited to another method of artillery attack, such as precision destruction or battery concentration with converged sheaf.

Thorough planning, reconnaissance, and coordination are musts; the best gun positions and routes of approach are mandatory. Consideration should be given to night occupation and organization of position. And, since the most desirable positions normally are well forward in the area occupied by the supported infantry or armor, close coordination with the supported unit is essential. Detailed target information—to include such data as the type of construction, the number and location of gun ports, and the placement of entrances—is essential.

Similarly, the best possible initial data must be obtained to reduce the time required for adjustment. Incidentally, site is a critical element of initial data because of the short ranges involved. A variation of 1 mil in the quadrant elevation may result in range changes of from 100 to 150 yards. The slower the adjustment, the more susceptible the assault-fire weapon is to counterfire.

ANY artillery piece may be used for assault fire, but the most efficient weapons, in order of preference, are the 8-inch howitzer, the 155mm gun, and the 155mm howitzer. Self-propelled versions are best suited for the mission because of their maneuverability and ease of emplacement and displacement. Maximum effective ranges using maximum

charge are 3,000 yards for the 8-inch howitzer and 155mm gun and 2,500 yards for the 155mm howitzer.

It is possible to use the 105mm and 75mm howitzers to close caves in soft, unconsolidated material; but the number of rounds required for each mission is much greater than for the larger caliber weapons. Ranges should not exceed 1,500 yards for the 105mm howitzer and 1,000 yards for the 75mm howitzer.

The 240mm howitzer, on the other hand, is not suitable since it is extremely difficult to elevate the trails to permit firing at elevations below the minimum elevation (267 mils) for which the carriage was designed. As of this writing, no tests of the 280mm gun in assault fire have been conducted; whether or not such trials are conducted, it is doubtful that the 280 would ever be exposed to such risk of loss.

HIGH-explosive shell is normally used. The highest charge that will clear intervening crests and strike the desired portion of the target is used to accomplish maximum penetration and reduce probable error. (However, with the 155mm gun, deeper penetration against such surfaces as hard rock may be obtained by using armor-piercing projectiles fired with supercharge. The crater obtained with AP is small in diameter and usually requires the firing of shell HE as every fourth or fifth round to widen the crater and clear away rubble.)

Concrete-piercing fuzes are appropriate for the destruction of fortifications. Fuze, concrete-piercing, nondelay, is used for adjustment and to clear away rubble; while fuze, concrete-piercing, delay, may be used for fire for effect to effect penetration. Or, fuze M51, quick, may be used to cut through a parapet or earth covering, after which the appropriate concrete-piercing fuze is used to effect destruction of the fortification. If concrete-piercing fuze is not available, fuze M51, delay, may be used in fire for effect. If excessive ricochets result from the use of concrete-piercing delay fuze, nondelay fuze should be used until enough cratering has been effected to prevent ricochet of the delay fuze.

ADJUSTMENT of fire is made by using a modified procedure in which the observer exercises complete control throughout the mission: he adjusts each gun to fire. In addition, the observer must be as near the target as possible, and, if at all practicable, on or near the gun-target line.

Corrections in yards are applied by the observer to each successive round until the point of impact is on the desired portion of the target. An off-line burst is brought to the

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line through normal adjustment procedure except that deviation corrections are given to the nearest yard. The target is bracketed for range, and the bracket is split successively. When the observer is able to estimate vertical error more accurately than range error, he makes corrections of site rather than range; and thereafter the smallest correction appropriate in direction or site is one-half yard. The point at which the observer begins adjusting site instead of range cannot be prescribed exactly; it depends on terrain, vertical dimensions of the target, and the observer's experience and ability. It is reached when the bursts are very near the target. Thus for a target such as a cave entrance on a steep forward slope, the average observer probably will find that after he splits a 50-yard range bracket he can adjust site more easily than range.

Fire for effect begins when the point of impact is on the desired part of the target; it is continued until the mission has been accomplished. Rounds are fired singly to permit the observer to make desired corrections or changes in ammunition.

The fire direction procedure used in assault fire is designed to obtain maximum accuracy and speed through use of a separate fire direction center for each weapon. Fire direction centers follow standing fire direction procedures except that tabular firing tables are used to determine elevations for the short ranges fired.

When the observer splits a 50-yard range bracket, the fire direction center considers that it is entering fire for effect. Data for the first round in fire for effect are measured from the firing chart; thereafter the chart is no longer used for the mission. Observer corrections are converted to fire commands by computation and by use of the "deflection shift card" (Figure 1) and the "quadrant change card" (Figure 2) which are prepared in advance for the gun-target range. And the chart operator and the computer become, respectively, the quadrant computer and the deflection computer for the remainder of the mission.

THE deflection computer, using the C and D scales and the YD index of the Graphical Site Table, prepares in advance a deflection shift card for the gun-target range to be fired. The values shown in the right column of his card are rounded off to the nearest mil for observer corrections greater than 2 yards; to the nearest $\frac{1}{4}$ mil for observer corrections of 2 yards or less. Consequently the new deflection is determined by applying with the "Left Add, Right Subtract" rule the appropriate deflection shift (read from the card and based on the observer's correction) to the previous deflection fired. For example—

Previous Deflection Fired	Observer's Correction	Deflection Shift from Card (Fig. 1)	New Command to Gun
2610	R7	R5	2605
2605	L4	L3	2608
2608	L2	L1 $\frac{1}{4}$	2609 L $\frac{1}{4}$
2609 L $\frac{1}{4}$	R1	R $\frac{3}{4}$	2609 R $\frac{1}{2}$
2609 R $\frac{1}{2}$	L $\frac{1}{2}$	L $\frac{1}{4}$	2609 R $\frac{1}{4}$

As in the case of the deflection computer, the quadrant computer, using the C and D scales and YD index of the Graphical Site Table, prepares in advance the quadrant change card for the gun-target range to be fired. The values shown in the right column of his card are rounded off to the nearest one-tenth mil. To determine a new quadrant based on the observer's correction, the required quadrant change

Deflection Shift Card	Chart Range 1500 Yds
Observer's Deflection Correction (in yards)	Deflection Shift (in mils)
$\frac{1}{4}$	$\frac{1}{4}$
1	$\frac{1}{2}$
2	1 $\frac{1}{4}$
3	2
4	3
5	4
6	4
7	5
8	6
9	6
10	7

Figure 1
Deflection Shift Card

Quadrant Change Card	Chart Range 1500 Yds
Observer's Site Correction (in yards)	Quadrant Change (in mils)
$\frac{1}{4}$	0.3
1	0.7
2	1.4
3	2.0
4	2.7
5	3.4
6	4.1
7	4.8
8	5.4
9	6.1
10	6.8

Figure 2
Quadrant Change Card

(read from the card) is added algebraically to the previous quadrant fired. Quadrant elevations fired are rounded off to the nearest mil until bursts are very close to the target (within 2 yards); when observer corrections of 2 yards or less for site become necessary, quadrant elevations to the nearest one-tenth mil are fired. For example—

Previous Quadrant Elevation Fired	Observer's Correction	Quadrant Elevation Change from Card	New Command to Gun
30.0	Up 4	+3	33
33.0	Down 2	-1.4	31.6
31.6	Up $\frac{1}{2}$	+0.3	31.9

The piece is laid for direction by any conventional method initially and later by use of a deflection board which permits the setting off on the piece sight of deflections to the nearest one-quarter mil. The board is graduated with alternating black and white bands the width of which is determined by computations. At 50 yards, 1 mil will subtend 1.77 inches. By establishing a band 1.77 inches right and another 1.77 inches left of the center of the board, 1 mil can be measured right or left by traversing from the center of the board to the appropriate band. By establishing additional bands 0.44 inches and 0.88 inches from the center of the board, $\frac{1}{4}$ mil or $\frac{1}{2}$ mil can be measured.

This board is attached to the near aiming post, exactly 50 yards from the piece; the far aiming post is not used.

On receipt of a deflection command, the gunner sets the whole mil portion of the deflection commanded on the scales of the telescope, then applies the fractional portion by laying on the appropriate space on the deflection board. The piece is traversed in the appropriate direction until the cross hair of the piece sight is centered on the proper black or white band on the deflection board. To move the tube $\frac{1}{4}$ mil, the gunner moves the line of sighting in the appropriate direction by traversing the piece so that the adjacent black or white band is covered; to move $\frac{1}{2}$ mil, the cross hair is moved two bands.

Changes in elevation are made initially to the nearest mil. The gunner's quadrant is used. When corrections sent by the observer are small, it becomes necessary to lay for elevation to the nearest one-tenth mil.

Those are the procedures involved in assault fire. At the very outset of this article, three distinct missions were mentioned: seal a cave entrance with rubble, reduce a concrete gun emplacement, and destroy a pillbox. No better summary of the procedures involved can be achieved than following a mission all the way through. This we do on the facing page.

How Artillerymen Using Assault Fire Seal Entrance to Cave

Mission: To seal cave entrance with rubble. Observer: target distance 1,000 yards

OBSERVER TO FDC:

This is Forward Observer E

Fire Mission

Coordinates 4824 3762 Altitude 420 Azimuth 4820

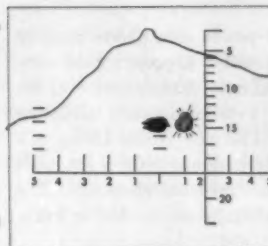
Cave entrance

Fuze quick

At my command

Will adjust

FDC TO OBSERVER:
ON THE WAY

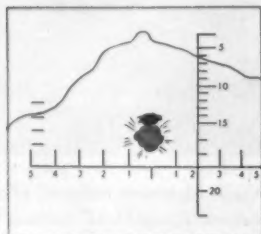


Sensing is DOUBTFUL, 10 RIGHT.
With field glasses, observer measures deviation of burst 10 miles right of OT line. Observed deviation = 10 yd. (10 X 1.0). Shift to bring burst to OT line is left 10.

Observer Correction:
Left to REPEAT RANGE

Round 1

FDC TO OBSERVER:
ON THE WAY

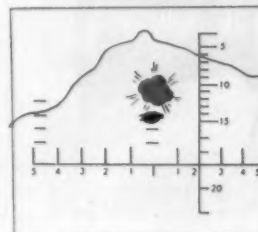


The burst has been brought to the OT line. Sensing is SHORT, LINE. Since initial data has been obtained by precise methods, a 50-yard change in distance along the OT line should bracket the target.

Add 50

Round 2

FDC TO OBSERVER:
ON THE WAY

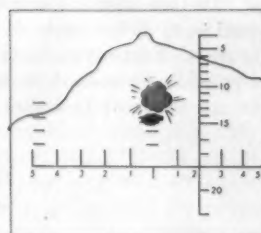


Sensing is OVER, LINE. Observer splits a 50-yard bracket, and hereafter will make changes in size.

OBSR TO FDC:
DOWN 25

Round 3

FDC TO OBSERVER:
ON THE WAY

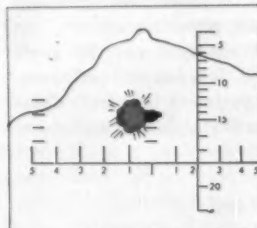


Sensing is OVER, LINE. Observer estimates that a vertical change of 10 yards will place the burst on the target.

OBSR TO FDC:
DOWN 10
REPEAT RANGE

Round 4

FDC TO OBSERVER:
ON THE WAY

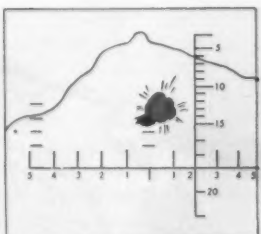


Sensing is SHORT, LEFT. Burst struck lower left portion of cave entrance.

OBSR TO FDC:
RIGHT 3, UP 3, FUZE
CONCRETE-PERCHING
NON-DELAY, REPEAT RANGE

Round 5

FDC TO OBSERVER:
ON THE WAY

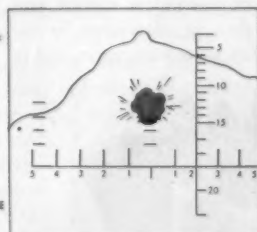


Sensing is OVER, RIGHT. Burst struck upper right portion of cave entrance.

OBSR TO FDC:
LEFT 1/2, DOWN 1
REPEAT RANGE

Round 6

FDC TO OBSERVER:
ON THE WAY

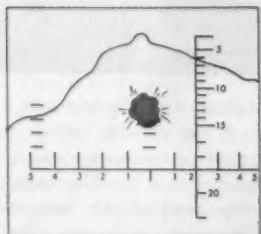


Sensing is OVER, LINE. Burst struck too high above cave entrance, partly sealing it.

OBSR TO FDC:
DOWN 1/2, FUZE
CONCRETE-PERCHING
DELAY, REPEAT RANGE

Round 7

FDC TO OBSERVER:
ON THE WAY

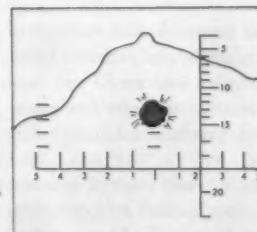


Sensing: TARGET. Rubble now almost completely sealing entrance.

OBSR TO FDC:
REPEAT RANGE

Round 8

FDC TO OBSERVER:
ON THE WAY



Sensing: TARGET. Cave entrance completely sealed.

OBSR TO FDC:
END OF MISSION
Cave entrance sealed,
cave unusable

Round 9

Irons in the Fire

1,000 Times Louder

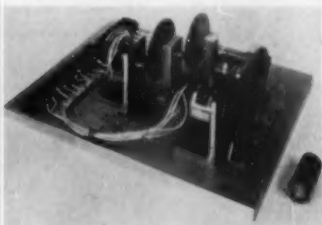
A new electronic power megaphone recently developed makes it possible to project vocal commands over wind and noise farther than ever before possible with a self-contained, all-in-one power megaphone. The new Audio Hailer is a small, well-built unit weighing only 5 lbs. with batteries, designed for one-hand operation. The secret of its tremendous power is that it has a



complete vacuum-tube amplifier built into the speaker housing, which provides sufficient amplification to magnify the human voice 1,000 times, approximately 16 times more powerful than any other one-unit power megaphone. Up to 5,000 ten-second messages may be given without battery change. It is designed and manufactured by Audio Equipment Co., Inc., Great Neck, N. Y., suppliers of electronic equipment to the U. S. Navy.

Miniature Computer

An analog computer component of cigarette-pack size (approximately three cubic inches) has been developed by the Arma Corporation, designers and builders of instrument control systems. The computer does its calculations by the interchange of heat, has no moving parts, and is



mass producible. The computer adds, subtracts, multiplies, divides, integrates, and performs basic operations of vector algebra and vector calculus as well as other mathematical wizardry five times as fast as the swiftest previous machinery for solving such problems.

It enables engineers to make control systems for such purposes as navigation at supersonic speeds, automatic gun-laying, guiding missiles, and automating machines and processes.

Mechanical Mule



The Mechanical Mule, built by Willys Motors, is designed solely for off-the-road operations in forward combat areas and is capable of carrying 1,000 pounds although it weighs only 750. Its overall length is 100 inches; its width 46, and its chassis only 27. The driver can operate it while walking or crawling at the rear or side. The steering wheel and steering column are adjustable and speed as low as one mile an hour is possible. The gear shift is conventional. It has "four wheel steering" and can be turned in an 18-foot circle, like a hook-and-ladder truck. It is made of lightweight alloys. A vehicle similar to this has been under consideration for several years by soldiers interested in airborne equipment. The present version is under test by Army Ordnance at Aberdeen Proving Ground.

Self-Loading, Non-Recoiling Shotgun



The new Winchester Model 50 shotgun is self-loading with a non-recoiling barrel. The breech bolt is activated by a "slip chamber" which moves only one-tenth of an inch when the gun is fired. This reduces the spring force required to close the action and overcomes the feel of a "double shuffle" between the hand and shoulder. The minute movement of the independent chamber starts into action the unlocking and extracting mechanism with no disruption of aim, and absorption of much of the recoil in firing. Prices start at \$120.50.

THE ARMY COMBAT FORCES JOURNAL

CEREBRATIONS

It's SOP!

I ASSUME the Army is firmly convinced that its field manuals fill a useful purpose. This being so, I think it is time we soldiers should ask ourselves whether manuals are doctrines or only a guide. If this question seems foolish, let me defend myself by citing a few exaggerated experiences that point up the question.

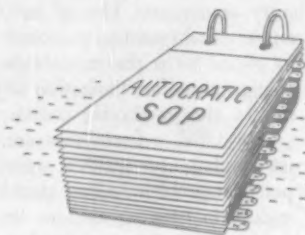
Somewhere in basic training I heard of FM 22-5 which was considered to be the "bible" on drill and ceremonial matters. Diligently, I applied myself to the task of learning its secrets and, after constant study, left for a new assignment secure in my knowledge of how things should be done.

Imagine my surprise when, drilling my company, I gave the command, "Column Left, March," and watched the pivot men executing a weird maneuver called "half-tracking." I was further bewildered when I reprimanded the men for the movement and was told that it was SOP in this outfit to do it as they had done because it was easier to keep the alignment of the platoons. A hurried search through FM 22-5 eased my fears that I had overlooked something. My dilemma was soon resolved by the receipt of a thousand-page book with an imposing title: "Standing Operating Procedure of the Autocratic (We Do It Our Way) Division." Sure enough, tucked away in its pages was a paragraph saying that the Army had been outvoted and a new movement had now replaced the column. It had evidently not occurred to the command to inform Washington of the matter.

I became quite familiar with the newly discovered guide and was amazed to see how the Autocratic Division had improved upon Department of Army literature. Here are some of the changes I uncovered:

General Flushbucket had decided that the wearing of the first aid packet on the right side of the cartridge belt gave it a disorganized appearance. Hereafter, the packet, bayonet, canteen and compass would be worn over the left hip and thereby present a compact and uniform appearance, not to mention the fact that it also made a convenient resting place for the left arm after it became bruised from hitting the array of objects. My cry of lopsidedness was met with the curt suggestion that I look at paragraph

Z, page 901 of the SOP. How stupid of me! Paragraph Z answered my criticism, "to offset the added weight to the left side of the body, rifles will be carried at Right Shoulder at all times. It is also suggested that all other items such as loose change, cigarettes, pencils,



etc., be carried only in the right pocket. To further balance the individual, helmets may be worn slightly inclined toward the right. The above is to be construed as a guide only. However, at no time will a commander alter the arrangement as it is the desire of the Commanding General that the Division present a uniform appearance to the public."

After a time I was assigned to the staff. Here too the SOP was a constant source of information. I had the occasion to write some correspondence to higher headquarters and, not wanting to appear ignorant, I looked up the latest D/A instructions on military correspondence. Following the directions closely, I completed my letter and sent it forward. The harsh ringing of the telephone awakened me from my daydreaming. "What are you trying to do, Lieutenant?" bellowed the Battalion Adjutant. "If you're going to send paperwork through my office, it has to be correct." I hastily explained that I had followed the directives of the Department of the Army. My excuse evidently soothed his feelings. "Oh, that," he condescended. "You must be new here." My attention was then invited to paragraph H of Section II on page 10 of the SOP. I hunted up same. It reads: "Regardless of D/A publications pertaining to Military Correspondence, the following SOP will govern all concerned. Correspondence will be prepared in twenty copies, the last five of which will consist of pink second sheets bordered in blue. All copies must be signed." It continued, "Five copies will remain in the originating unit files and the reminder will be sent forward. No

agency will detach a copy from this correspondence. If a copy is desired, the unit will type four copies and retain them in their files. When a file becomes obsolete, all copies will be turned over to the Division Waste Disposal Officer with an accompanying letter explaining why the correspondence is being turned in. (Letter will be prepared in only ten copies.) This practice will assure the Division of maintaining its lead in the Command Paper Drive and will add greatly to the morale and the prestige of the men of this organization."

During the course of my stay with the Division I became a disciple of the SOP. Had anyone the effrontery to quote a certain manual to me, I was immediately able to refer him to the appropriate section of the SOP which superseded the offending manual. I had even been toying with the idea of drawing up an SOP to be followed in writing an SOP. However, orders arrived transferring me to a different command and my project was forgotten.

I packed my meager belongings in my bag, making certain that I followed the current directives. Upon my arrival at my new station, I was assigned as Battalion S3. This was right up my alley! I was qualified for the job since I knew all the new ways of doing things. My first inspection of training was a sad experience. I was in the process of correcting the arrangement of equipment on the belts of the men when I was interrupted by the Battalion Exec. "What kind of mess is that?" he growled, pointing at the belts. "It's the new look, sir," I assured him as I whipped out a copy of the SOP. "Throw that damned thing away and look at your field manual, Lieutenant."

Reflecting on the injustice of things, I returned to my desk and prepared a request for a range, in twenty copies, attaching a few extra copies clearly marked, "to be detached by interested parties." It was quitting time by now and I headed for the door. My progress was halted by the Exec. "Come into my office," he ordered.

"Regiment is raving because you sent twenty copies of a letter to them. What's the idea?" he asked. I brightly explained the SOP to him, finishing weakly as I noticed a glassy stare in his eyes. "Who in the hell do you think you are?" he roared. "Did you ever read TM —?" I informed him that it was superseded by

my SOP but my explanations were cut short as he continued. "The Army spends a lot of money on field and tech manuals and, if it's good enough for the Department of the Army, it's good enough for you. In the future, follow the book."

I stumbled from the office and into the dayroom where my gaze encountered a copy of *COMBAT FORCES JOURNAL*. I would write to the editors and ask for advice.

LT. EDWIN F. O'BRIEN

• We pass the buck to our readers.

Rangers Are the New Look

THE key to success in atomic war is the heart and mind of the leader. The soul of the infantry is inspirational leadership. The key to invincibility is our leadership "standing tall" before the challenges of atomic conflicts. The challenge is to train and condition the reflexes and thoughts of men to embrace atomic tactics in practical field applications; to prepare men and leaders for the dynamic impact of any-directional attack or all-directional defense; to exert pressure upon the individual's maximum will to win battles of increased fire power; to even faster movement, and to the possible enlargement of the battlefield to the breadth of hemispheres.

Dispersion of forces without dissipation of power virtually hangs on the threads of fine leadership. Knowing this full well, commanders bear a most solemn obligation in the procurement, training, and employment of that leadership. Sound training creates confidence in the hearts of commanders. Confidence in the commander inspires loyalty in the leader. Gone should be the platoon leaders ordered "to engage" by division, regimental, or battalion commanders. Gone will be the platoons committing squads by orders from binocularized commanders in their OPs. Atomic tactics will force commanders to have faith in their leaders. Atomic battle will impose faith in the training, the judgment, and the actions of leaders.

To bolster that faith we must apply Ranger training throughout the infantry.

In 1950, in Korea young officers from the USMA, ROTC and from other sources suffered from a lack of drilled, polished field training. Not so with commanders and staff officers. The Army diligently pursues the development of staff and command officers; it must similarly pursue the training of its leaders. As diligently as combat leaders are drilled, so must they be allowed to anticipate change. They must be encour-

aged to accept and anticipate transitions and developments that fuse their fighters to atomic action and tactics.

Apply Ranger training! It is the training which best serves as a base to expand future small-unit task force concepts and to develop skills the leader needs. It is, in fact, the framework or skeleton on the New Look in infantry; a small force of highly destructive capacity.

Little modification of Ranger training would be necessary to approximate future infantry operations. Use of helicopter transport and qualified parachutists is part of it. So is the reestablishment of foreign arms familiarization firing. It should also emphasize contour marching as a CBR defense measure, put intense emphasis on survival training as a practical problem, adjust patrol course (leadership training aid) to average situations; accent atomic development and encourage anticipation of atomic tactics. Finally the Rangers and the Infantry School can encourage individual research in the problems of graduates of the program.

Providing the Infantry with a hard core of Ranger-schooled officers and NCOs is the best guarantee for a high standard cadre for a mobilization base. In time all infantry officers would be Ranger-trained. Ranger training should be a prerequisite to promotion to NCO grades.

Ranger infantry is the New Look in ground combat forces!

LT. RICHARD J. BUCK

Roads Are Here to Stay

Motor vehicles have quite successfully replaced the horse but some of the characteristics of the horse have been carried over in our military vehicle designs. Whoever decided to build military vehicles with power applied to each wheel was sticking to a horse-and-buggy idea that is outmoded.

It is true that Stateside we have replaced our tactical vehicles in administrative motor pools with modern (and practical) commercial vehicles. But what do we find in our tactical motor pools? Tactical vehicles that remind me of our four-footed friends of the past.

Our Corps of Engineers spend lots of time (and money) building roads—for what? Vehicles that don't need roads? Of course not. Our old stand-by, the World War II 6x6, is still with us, in a modern shiftless version. My limited experience includes Europe and Korea and in both theaters I saw vehicles transport troops and cargo—over roads.

I think roads are here to stay. So why don't we have vehicles that are suitable for operation on roads? The Army is big business and we should endeavor to run it economically. While it is now too late to change our tactical vehicles into practical vehicles, future procurements could undergo some changes.

Sure, we need some all-wheel-drive vehicles for off-the-road towing of guns and other specialized requirements. But we also need many commercial type vehicles for our commercial type hauls.

A staff study should give us the answers to the questions that this brings up. Here are my recommendations:

(1) Stop building, buying, operating and maintaining too many transfer cases, drive shafts, and live axles in military



vehicles. (Almost forgot, waterproofing, too. It costs too much.)

(2) Build, buy, operate and maintain vehicles suitable for roads. It's cheaper.

(3) Make the component parts of our practical, tactical vehicles interchangeable with those of our special purpose (present M series) vehicles.

(4) Continue to build roads.

(5) Reduce the taxes that my children will have to pay, by replacing horses.

CAPT. WILLIAM D. BOYER

Rotation of Assignments

DID you hear of the officer who was sent to the Far East and spent his whole tour at a corps, army or theater headquarters?

Did you hear of the officer who was sent to the Far East and commanded a rifle platoon or company or an infantry battalion in combat all the time he was there? I'm sure you have.

Some while back *COMBAT FORCES JOURNAL* had this paragraph on one of the series on "Career Management and Your Future":

"Career Management cannot alone develop a proficient officer corps. Successful development of an outstanding officer corps depends primarily on the initiative, willingness and ability of commanders to rotate officers in various types of duties."

Now, I should like to set forth an idea

or two on how I think the assignment and reassignment of officers might have been done in the Far East to provide the Army with more fully experienced officers for the future.

First, let me say that the point system as it existed during the last year of the war in Korea seemed to be generally accepted as the fairest and most feasible system under the circumstances. This system, to refresh your memory, credited men in front-line battalions (plus others such as artillery forward observers) with four points per month; men in rear of front-line battalions and extending on back to division command posts were credited with three points monthly; all others in Korea received two points each month. The number of points needed for rotation home was 36 for those in the front-line battalions and 40 for all others.

With this point system as a basis, I believe the most effective system of assignment would have been to send everyone, except for the rare specialist earmarked for a special slot somewhere along the line, as far forward into the combat zone as his rank and branch of service would allow. A lieutenant colonel of infantry would have been assigned to command an infantry battalion. An infantry captain would have been assigned to command a company, preferably a rifle company.

After such initial assignments, lasting a variable number of months, these officers would have then been rotated to staff jobs. They would have been assigned to battalion, regimental and division staffs, and to corps, army and theater staffs. These staff assignments would, of course, have been appropriate to each officer's rank and experience.

Eventually these officers would accumulate enough points to return home.

Admittedly, the administration of an officer assignment program such as this would have been difficult, but I believe not impossibly so. And the advantages of such a program, it seems to me, would have more than compensated for the administrative troubles entailed.

And what advantages would have accrued?

Practically every officer from second lieutenant to lieutenant colonel (at least in the combat arms) would have received both command and staff experience in combat.

A more equal distribution of the risks of front-line duty would have been effected.

Finally, officers assigned to staff jobs after completing command assignments would have been more alive to their

staff responsibilities with respect to the troops and, generally speaking, would probably have been more responsive in satisfying the needs of the troops.

LT. COL. GEORGE JUSKALIAN

Piecework Pay

A SOLDIER fights for several things—and one of these things is his pay—and the system under which we pay our fighting men is as antique as the flintlock.

Consider what the soldier of Genghis Khan gained by fighting: land, food, women, and wealth in the form of precious metals. The better he fought, the more loot he got and kept.

We don't allow looting. We pay our men by the month. A definite sum of money. They don't get any more, whether they advance two miles, ten miles or seventeen hundred miles. Most of them, that is. Of course, some privates become corporals and some corporals rise to sergeants, and some sergeants get to be lieutenants. But everyone can't be a lieutenant. There are only a few colonels. There are fewer generals. So, most of them remain privates. Of course, they do get additional sums (small) for being sharpshooters and for winning certain medals (very few). That is as it should be. They also get increases in pay for length of service. That's a good idea, too. And for jumping out of airplanes, flying and submarine duty, soldiers, airmen and sailors get additional sums. There's nothing the matter with that, either.

However, there is no system which cannot be improved. A sub-machine gun is not a sub-machine gun until it's moving forward in the hands of a man who knows how to use it, and will spit out a burst of eight or ten bullets when the index finger of his right hand presses the trigger. It's not a sub-machine gun while it's in pieces, on an assembly bench at the factory, in a box on a truck on its way to the cargo plane. It's not a sub-machine gun even when it's at company supply. When Corporal Maguire gets it, and puts a clip in it and fires a practice burst and is satisfied and slings it over his shoulder and the strap gets stained with the sweat coming through his uniform, and he's got it ready to use

in one and two fifths seconds—then it's a sub-machine gun.

The problem is: How can we get the gun to Maguire faster? The speed of its delivery depends, let us say, on a series of operations involving decisions, proper work and actions by forty-three men. Suppose one of those men is like the jeep driver who, when told that his headlights were on in daylight, answered: "It don't make a damn bit of difference to me!" There's a good chance that, as Maguire's gun passes through this man's hands, it will get dropped and broken, or it'll get the wrong legend stencilled on its box and somebody won't load it on the truck, thinking it's a box of something less useful, like garrison caps.

Shouldn't it be possible to set up a system of incentive pay in the services—for certain jobs, at certain places, under unusual circumstances—for guys like the jeep driver, so that it would make a difference to him whether Maguire's gun got on the truck?

Let us suppose that he were to get a fifth of a cent for each gun, over a set daily quota, which he delivered and that, in addition to being eloquently complimented by the sergeant, he were to get this money at the end of the week.

Wouldn't the driver work harder to get that extra money to send home to his wife, or to his mother, or to buy beer? There isn't much doubt what would happen. Maguire's gun would get into the jeep, and the jeep's lights would not have burned all day and the engine would start and the gun would get to the plane and the plane would take it up into the air and drop it where it should go and at company supply somebody would hand the gun to Maguire and he would try it out and sling it over his shoulder, where it ought to be.

All kinds of successful civilian companies have incentive pay systems. Successful little companies. Successful big companies. They find that it pays. What they want done gets done. So why don't we consider it in the military services? And while we're considering it for the military, for guys like the driver, let us remember Maguire. I think it would please him.

I hear the little guy with the derby hat, over in the corner there, saying, "It can't be done." I guess he means that he knows it should be done, but he doesn't think we can do it. Well, I don't mind if he says that to me. But I don't think he should say it to Maguire.

LT. CMDR. CHARLES STUART
U.S.N.R.

WHERE ARE YOU?

That's what our Circulation Department is asking about those of you who haven't sent in a change of address. We suggest that you do it now. Address:

CIRCULATION MANAGER
1529 Eighteenth St., N.W.
Washington 6, D. C.

Two Readers Write About

Lament for a Skulker

Two of our readers, who are also occasional contributors, took prompt and lengthy exception to some of the points Colonel Frederick Bernays Wiener made about the execution of Private Slovik in our July issue.

Colonel Shillelagh graduated from the Military Academy in the 1920s and has been a Regular Army officer ever since.

Mr. Webster is a West Coast newspaperman and was, as he writes, a paratrooper rifleman in the 101st Airborne Division during the Second World War.

For reasons of space we have been forced to condense both articles and in the case of Mr. Webster to eliminate a few minor points. We have, however, taken pains to keep intact the major arguments of both of our correspondents.

Our readers are well qualified to decide for themselves about the correctness of the interpretations of Colonel Shillelagh, Mr. Webster and Colonel Wiener.

Necessity, But Not Justice

Colonel Shillelagh

IN "Lament for a Skulker," Colonel Wiener corrects some of the obvious errors in the Huie book and adds pertinent background information which helps to sharpen the Slovik case. In holding that the mistake was not in executing Slovik but in failing to execute others who were equally guilty, Colonel Wiener fails to comment on other important issues.

It is most important in reviewing the Slovik case to keep in mind that it is the extremely rare case which is likely to occur once in the mobilization of ten million men. Drawing conclusions from this case about the American will to fight is obviously improper. Drawing conclusions about our system of military justice is permissible because that system purports to administer individual justice.

The Huie book is the finest tribute to the Army training system which I have seen. It is truly amazing that the Army could take a man with Slovik's background and determination not to become a soldier and make him one in spite of himself. It did the job. Then, there was a fumble in the replacement system and the pawn was lost in the tremendous jaws of war.

It might have been otherwise. Let us not conclude, however, that we can design a replacement system which would prevent it. No workable system could have given

Slovik the personal attention he required. It might have happened by chance.

* * *

I do not agree with Colonel Wiener's conclusion that Slovik got justice. The legality and the justice of a sentence are two different attributes, with legality providing only a general cloak for justice. It is surprising that this aspect of the case was not mentioned by the reviewing judge advocates. Their opinions reflect an understandable but unfortunate preoccupation with discipline.

There is an even quality to justice which is lacking in this case. However legal, it is not just to go for eighty years excusing and extenuating desertions and then to exact the death penalty in one case. It may be necessary, but it is not justice. Slovik was entrapped by an expectation based on long-established precedent, an expectation which was recognized by his contemporaries and apparently by the court which sentenced him. . . . Justice requires the even exaction of like punishment for like offenses so that all may be continually aware of the consequences.

Did discipline require the execution of Private Slovik? If so, it was the indiscipline of the Bulge that required example and Slovik died not for his own offense but for

the deserters in the Bulge. This is the tragedy of our system of justice. If there was a military requirement, it was for the prompt execution of those who deserted in the Bulge. . . .

Was Slovik executed, as he claimed, for his youthful offenses? It seems likely that in an important degree he was. The judge advocate who was charged with principal responsibility for clemency consideration could find no basis for it. Apparently the social reform of Private Slovik and his establishment as a good citizen did not appear on his record along with his earlier offenses. The character references which might have been given by his buddies in the service were not produced because the system had separated him from his buddies and because in the beginning he was adamant in seeking his own conviction. Under the pressures of battle and Slovik's attitude, the provisions of military law requiring conviction on the evidence and not on a confession were skipped. It was not that the evidence of desertion was lacking; it was too pat. I cannot believe that Slovik's company or division commanders would have permitted a new recruit, who really had never joined the outfit and felt its spirit, to persist in his obviously fabricated desertion if they had realized that he was in fact misguidedly courting his own death. . . . Surely there were more flagrant and serious desertions, if an example had to be made. It seems that our judge advocates were deceived by the tight legality of the case and that they lost touch with reality.

Yet, the most serious charge in Huie's book is not made by Huie, except by omission. He does not indicate that any commander, from company to theater, ever talked directly with Slovik after his conviction. If commanders are to deserve discretion in capital cases, they cannot leave these decisions to their lawyers.

Did the execution of Private Slovik save the life of one staunch soldier who might otherwise have been exposed to death by a potential deserter? The high probability that it did lends a quality of justice to the execution in spite of all the failings of our military justice system. Let us keep in mind also that the failure of our system was in not protecting one misguided American from himself. We need not apologize for

a system on which we impose such a standard.

Colonel Wiener indicates that irrational sentimentality has since World War II moved our system of military law away from the requirements of justice. What is

anyone doing about it? It should not be impossible to convince a panel of eminent American jurists that the requirements of discipline and justice are compatible and that our system of military law must be designed to serve both.

The Generals' Anger

David Kenyon Webster

COLONEL WIENER read *The Execution of Private Slovik* and wrote a venomous review called "Lament for a Skulker." I read the book, and if I were to write a review, I would call it "Private Slovik and the Generals' Anger." Though neither a lawyer nor a colonel—I am a reporter who was a paratrooper rifleman with the 101st Airborne Division for three years—I would like to take issue with Colonel Wiener on several points.

Not that I am defending Slovik. He was a deserter who deserved to be punished as other deserters were punished: By a twenty-year prison sentence. I maintain that he did not deserve to be shot, that his secret execution failed to serve the very purpose of a deterrent for which it was ordered.

In the parachute infantry regiment with which I served, it was generally understood that rape was death and desertion was twenty years. Before our combat jumps in Normandy and Holland, our officers told us that refusal to jump in combat would be considered desertion under fire and would be punished by a twenty-year prison sentence. I cannot recall any mention of execution as a punishment for desertion . . .

I believe . . . Slovik . . . knew from hearsay that deserters got twenty years, that this would probably be commuted after the war, and that he acted on this hearsay knowledge. Being not altogether bright, he wrote out a declaration of desertion, to make doubly sure he got in the guardhouse. This was, I maintain, his major error. If he had not provided an angry division staff and an angrier division commander with this bald, infuriating declaration, I rather doubt if he would have been executed. . . .

. . . Slovik's trial came up in the winter of 1944-45, and all the circumstances combined against him: the written note, the battle losses, the German breakthrough in the Bulge . . . Looking back . . . it seems like some bleak and ancient, half-forgotten era, and we forget how the front bogged down, how the great drive of the fall turned into a slow, dismal battle for every terrain feature. Desertions were mounting; men left their holes at night and never came back; the ETO replacement system (always complained of, never corrected) was showing signs of strain and increased inefficiency. The generals were mad and understandably so. They needed an example. This fact was completely overlooked by Colonel Wiener in his review, but I

think it is one of the major points of the Slovik execution. Making an example is a delicate and generally distasteful practice and it backfired in this instance, at least to my way of thinking. . . .

Slovik was tried by a court composed of the 28th Division staff. For a parallel, far-fetched though it may seem, picture a factory hand who breaks a mill window during a strike and is then brought into a court where judge, jury, prosecutor, and defense attorney are all members of the board of that factory. Without emphatic warning that his is a capital offense, he is then sentenced to death under a law not enforced for some eighty years.

The court gave Slovik what it had given others: Death by musketry fire. This was, as one member told the author, the usual sentence and merely a formality that had always been reduced to twenty years in prior cases. Nobody on the court thought Slovik would be shot.

General Cota thought differently. His division was being ground to bloody rags in that terrible Hürtgen Forest . . . He needed an example, and Private Slovik gave it to him—in writing.

Furthermore, the lieutenant colonel who reviewed the case for General Cota got an FBI report on Slovik's criminal record . . . [Neither he nor General Cota] (nor, it is apparent from the way he writes, Colonel Wiener) understood the meaning of such a criminal record, how a man who has once been arrested and convicted of a crime is arrested every time thereafter that such an offense is committed in his neighborhood. These arrests go on his record and appear at first glance highly alarming to the uninformed. Slovik's crimes were actually of an extremely petty nature . . .

Slovik had not reckoned on being shot. After all, no deserter had been executed since the Civil War. He had no recourse and no appeal. A private in the infantry overseas in wartime has less rights than a convict in a civilian jail. The convict has contact with the outside through visitors; the private has nobody. . . . The inspector general? Sheer myth. How does an enlisted man contact an inspector general? He is boxed in completely, and no amount of Army lawyers, citing book after book and regulation after regulation, can ever convince a person who has been an enlisted man in the infantry overseas that it was ever otherwise.

Slovik wrote General Eisenhower, and General Eisenhower never read the letter. But he signed his death warrant. There was no place for Slovik to turn to; the Army does not maintain a Supreme Court. And so he was marched out in the snow and shot. That example was made.

Is it too much to ask why, if this execution was to serve the purpose of discouraging other desertions, it wasn't publicized beyond the 28th Division? Perhaps it might have cut down later desertions considerably. S. L. A. Marshall, Army historian and author of a series of splendid battle studies, was ETO historian at the time, and he says that he never heard of Slovik's execution. As a rifleman, I occupied a somewhat lesser role, and I never heard of it either . . .

In other words—and this is a point that Colonel Wiener missed—a vindictive, arbitrary, and implacable execution served no purpose whatsoever . . .

Thousands of men died in that war to preserve the basic freedom of the individual, his right to fair play. These men died accidentally; they were not coldly tried, condemned, and executed. The principles that they died for have made our nation great and strong. How can the Army expect men to serve willingly in the infantry if they realize that they may have to lose these human rights?

Nobody objects to discipline if it is fairly administered. I am sure that all most of us asked of the Army was a manly fairness. If a man's life can be taken away in a moment of anger for a crime no greater than that of thousands of other men, then the Army is going to find a great dearth of volunteers for its basic arm, the infantry. And unless we have a strong infantry, we will not have a strong country. Talk of the Air Force and the atomic bomb is comforting, but an airplane never took a piece of ground and never will.

[Colonel Wiener's] errors are the minutiae upon which lawyers thrive and grow rich; they are not important to the basic story, which I believe was well told.

It is to be hoped that if we have another war, a firm policy on desertions is established and proclaimed at the start, so that all men may know where they stand and none may make the mistake that Slovik did. As I said in the beginning, my unit understood that the penalty for rape was death. The result: precious few rapes. If it had been clearly established that the penalty for desertion was death or a full twenty years (not discharge after a few years in a detention training center), then there would probably have been as few desertions as there were rapes . . . Men like to know where they stand, and if an Army law is strict, fear will force them to obey it. But if it is subject to the whims of angry generals, then it will arouse only furious resentment, and you will have desertions on the scale of the Germans and the Russians.

COMBAT BRIDGE

CHINESE-BUILT FOOTBRIDGE

The Communist solution was a footbridge in the shadow of the high-level span

Major John C. Bell

THE Mojin Bridge, across the Pukhan River almost exactly on the 38th parallel about ten miles downstream from Hwachon Dam, had a turbulent existence during the Korean conflict. The high-level, steel-deck, girder bridge lay in a zone which changed hands several times during the yo-yo stages and consequently became an object of interest to those engaged in rapidly building and rebuilding over-water structures.

United Nations engineers can take some solace in the fact that they were not the only ones harassed by the Mojin Bridge. There is evidence that the Communists expended many man hours on this troublesome gap in their "road to Pusan." An expedient footbridge, built by them during their last tenancy, is of interest to soldiers who may some day have the task of putting men across a stream without engineer equipment or support.

When the Chinese Communists approached the Mojin Bridge on 26 April 1951, they found several gaps in the 849-foot, nine-span steel-girder bridge. The fourth span from the south end had been neatly cut out, and the first and second spans from the north had also been dropped. In addition, the 100-foot triple single Bailey across the southernmost gap was now

nestled closely atop the dropped Mojin steel in the waters of the Pukhan. It must have splashed water on the Chinese when it fell, for it was shot down by United Nations tank fire (a neat expedient in itself), the day the Chinese approached it.

UNABLE to cope with such a situation, but needing a crossing for men more urgently than a crossing for vehicles, the Chinese constructed a footbridge out of local materials. The floats were empty 55-gallon fuel drums, the treads, transverse bracing and "outriggers" were Bailey Bridge chess, and the whole was secured by lashings of common telephone wire. Four chess abreast provided a walkway a bit more than 35 inches wide.

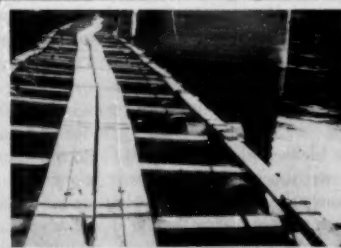
The footbridge was located so as to take advantage of the best features of the site. The placement just on the upstream side of the bridge allowed it to rest against the original fixed bridge piers without requiring any guy lines—at least during the low waters prevailing at the time. Its lines blended in well with the lines and shadows of the high bridge and of the wreckage in the water, so that it was extremely difficult to see from the air. This was probably of importance to the Chinese, harassed daily by warplanes.



The Mojin Bridge in April 1951. One 100-foot Bailey is in place and a 300-foot Bailey was being prepared for the far end.



The Communists threw this footbridge over gaps in the bridge when they "owned" it in 1951.



The Communist-built footbridge rested against the upstream side of the piers of the bridge.

The Word from the Schools

THE INFANTRY SCHOOL

Two Classes Lengthened

The six-month Officers' Advanced Course has been extended to nine months and only one Advanced Class has been scheduled for fiscal year 1955.

Basic Infantry Officers' Course has been extended to 15 weeks. Twenty-five classes have been scheduled for fiscal year 1955.

Firing Team Selections

Final competition for selecting a rifle and pistol team to represent the U.S. in the 36th Annual International Shooting Union World Championship Matches will be held at Fort Benning from 27 October to 7 November.

The Infantry Center will conduct a small-arms firing school designed to teach Army marksmanship instructional methods. The school will coincide with the National Trophy Matches and is open to members of the armed forces as well as civilian organizations.

New Film

Movie crews have filmed the story of the U.S. Infantryman at Fort Benning. "All Star Team," a semi-documentary picture for national television distribution, recruiting service and military release, will show all phases of the Infantry and its elements.

National Guard OCS

Infantry School officials expect approximately 200 National Guardsmen to take advantage of the special officer candidate course offered at Fort Benning this summer.

The eight-week course is designed to give selected National Guardsmen an opportunity to qualify for commissions in all branches except artillery during summer months. However, final approval for commissions will still be determined by State National Guard boards.

THE ARTILLERY SCHOOL

New Commandant

Maj. Gen. Edward T. Williams is the new Commanding General of The Artillery Center, and Commandant of The Artillery School. He succeeded Maj. Gen. Charles E. Hart, now commander of V Corps in Europe.

AFF Board 1 Moves

Army Field Forces Board No. 1 has completed its permanent move to Fort Sill from Fort Bragg, North Carolina. The mission of this board is the testing of all types of field artillery weapons.

ROTC Summer Camp

Sixteen hundred senior ROTC cadets participated in summer camp training here; this figure made Fort Sill's encampment the largest within the Fourth Army area.

Intensive practical training was the keynote. Students received field experience in the performance of tactical, technical, and administrative duties. Also stressed were physical development, athletics, military bearing, discipline, and sanitation. Camp,

battalion, battery, platoon, and individual competitions—with suitable awards—were employed to engender military excellence.

Two-Channel System

The two-channel method is now being emphasized as the primary radio system by TAS in its communication instruction. Reasons for the switch from the four-channel system:

- (1) Additional channels (or further frequency allocation) are presently improbable due to universal crowding of the frequency spectrum and design of today's equipment;
- (2) Trends in new developments and doctrine for fire direction are towards use of the two-channel system, which greatly reduces the crowding of frequencies.

Heretofore, there has been a requirement for a minimum of 173 FM frequencies for the artillery in the type corps. Now, by having the divisional 105mm battalions convert to the two-channel system, the requirement can be reduced by 18, for a total of 155 channels. No reduction has yet been made in nets of other FA units, such as the FA Battery (Searchlight) and FA Battalion (Observation).

Among benefits accruing from use of the two-channel system:

- (1) Equipment workload and power supply problems are diminished proportionately by the few frequencies monitored at FDC; vehicular engine operation for radio power is similarly reduced.
- (2) More frequencies can be used in counterjamming activities.
- (3) Units trained under this method can readily employ more channels; while units trained under the four-channel system require considerable reorientation in conversion to a two-channel system.

Admittedly, there will be some overlaps of frequencies within a corps. Nevertheless, since the Artillery's most powerful FM receiver-transmitter, the RT-67, has a rated transmitting range of 10-15 miles (something less than the front occupied by the type corps), artillery frequencies, if properly allocated and spaced, can be repeated from corps to corps without causing unacceptable interference. (Corps artillery guards against inter-battalion interference when units are moved about by changing frequencies of the moving units.)

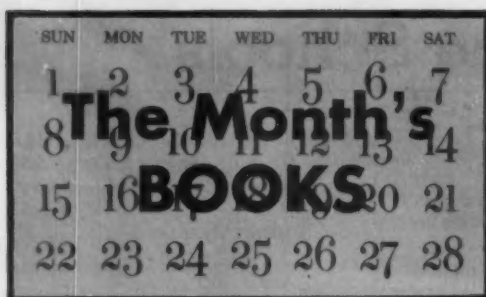
The two-channel system is now being used effectively by medium battalions. Despite the presence of seven additional radios, the only problem in light battalions is training and discipline to insure the most effective use of assigned channels. During World War II and the Korean conflict, almost all battalions used the two-channel system (from necessity) since the four-channel method made the assignment of interference-free channels a virtual impossibility.

Doughboy Statue



A "Follow Me Fund" to finance construction of a base for a life-size statue of a U. S. Infantryman to serve as a permanent memorial at The Infantry Center is under way. The bronze statue of the combat foot soldier was cast in Germany in 1946.

An estimated \$2,500 is needed to erect a terrazzo concrete base. The monument will be located in front of The Infantry School Building. Two Infantry combat veterans, Staff Sgt. Thomas E. Love and Technical Sgt. Donald W. Remmerl, were used by German sculptor Ernest Kunst as models.



Modern Tactical Mobility

CAVALRY OF THE SKY

By Lynn Montross

Harper & Brothers, 1954

270 pages; illustrated; index; \$3.00

Reviewed by

MAJ. GEN. JAMES M. GAVIN

It is a long way from The Halls of Montezuma to the hills of Korea. It is a way filled with combat accomplishment and adaptability to the ever-recurring changes in the pattern and hardware of war. Along the way our associates in the Marine Corps have laid solid claim to a place of distinction in the warrior's Valhalla. Not only have they fought well, but they have displayed timely nimbleness in adjusting to the changing character of combat. And at the same time they have sung their own praise with admirable immodesty.

Cavalry of the Sky is the story of their contribution to the development and combat use of helicopters. It is written by Lynn Montross, whose last volume was *Rag, Tag and Bobtail*. He is one of our best and most readable contemporary writers of history. Writing on this occasion for the Historical Division of the Marine Corps, Mr. Montross sticks to the Marine facts and statistics and makes excellent use of plenty of both. Perhaps the slant of the book is best suggested in the Foreword by the Commandant of the Marine Corps in which he refers to the latter as "the nation's force in readiness." (Italics mine.) It is an assertion that will come as somewhat of a surprise to the battle-worthy U.S. Eighth Army in Korea. Likewise to the hard-working, combat-ready Seventh Army in Europe, and to the Army's XVIII Airborne Corps, a volunteer outfit that maintains a state of combat readiness and a strategic and tactical mobility second to none.

Cavalry of the Sky is a valuable, well documented record of the Marine Corps' search for modern tactical mobility. Characteristically, the Marines followed the Army's efforts in the same field with careful and discriminating interest, rejecting what appeared to be unsound and accepting and developing ideas of promise. In 1942 the USMC had both glider troops and paratroopers. Having made a half dozen jumps with the latter and sensing their unusual combat potential, I never could quite understand why they gave them up. The clue seems to be in Mr. Montross' comment,

"Marine demonstrations brought to mind the object lessons of World War II which taught that paratroopers were often too scattered for an effective surprise attack after landing."

That, too, was the Army's first experience. Nevertheless it went ahead and developed the methods to make parachute units combat effective. Expanding from a platoon in 1940 to five divisions by 1944, they contributed decisively to Sicily, Salerno, Normandy, Corregidor and Bastogne. It is interesting to note in passing that Russian parachute officers expressed the same view in Berlin in 1945, stating that what stopped them in their efforts to create large airborne units was an inability to develop the methods and equipment to handle large airborne formations in combat.

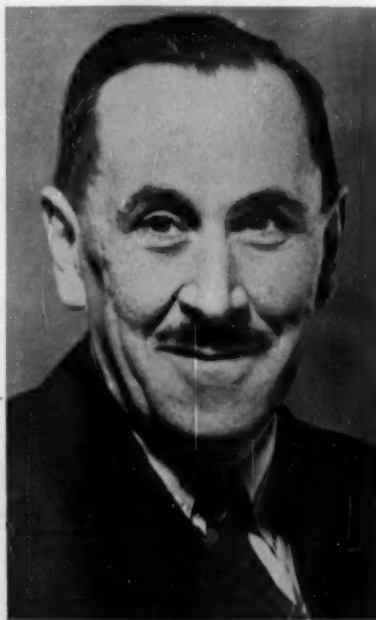
While the Marine emphasis on amphibious operations in World War II is understandable, the Army nevertheless went ahead and solved the problems of airborne operations, and their major units never were, to my knowledge, too scattered for an effective surprise attack after landing. The most plausible reason for the Marine inter-

est in airborne combat via helicopter is to be found in General Geiger's letter to the Commandant of the Marine Corps on 21 August 1946, after Bikini. As quoted by Mr. Montross: "Under the assumption that atomic bombs can be produced in large quantities, that they can be used in mass attacks against an enemy objective, and that our probable future enemy will be in possession of this weapon, it is my opinion that a complete review and study of our concept of amphibious operations will have to be made."

Mr. Montross' book is a comprehensive record of the Marine Corps' response to the concept contained in General Geiger's letter. Tracing the airborne concept from Leonardo da Vinci's projected flying machine to the present-day air vehicles, it describes the most significant events in detail. There was no such thing as a practicable helicopter in 1921 when the U.S. Army first financed a design for one. The years immediately following were barren of significant progress. However, in 1939, tests conducted by the Army Air Corps showed unusual promise, and finally in May 1942 the U.S. Army flew the first helicopter from Connecticut to Wright Field, a distance of 761 miles, in six days.

The first cold-weather test took place in the winter of 1943-44. As reported by Mr. Montross, "One of the earliest military tests took place in the winter of 1943-44 when an Army YR-4 was taken apart and flown 4,000 miles to Alaska in a C-46 transport plane. This helicopter was equipped with pontoon gear and used for simulated rescue missions under Arctic weather conditions. The machine performed surprisingly well at low temperatures." In 1944 interest in its development was intensified, and as reported by Mr. Montross, on March 2, 1944 Colonel Gregory of the U.S. Army Air Corps set a new world record in making a nonstop flight from Washington National Airport to Patterson Field, Ohio.

In 1946, thirteen helicopters were assigned to the Army's 82d Airborne Division for test. The results were promising and efforts were then made by the Army to obtain more, both in numbers and varied types. Unfortunately, they had to be procured through the Air Force and it was difficult to obtain acceptance of this odd-appearing contrivance. Despite the needs of the Army, as late as 1949 a senior officer



LYNN MONTROSS
Helicopter Historian

of the Air Force made the observation that, since it was one of his responsibilities to pass on the suitability of requirements of this character, he considered it appropriate to say that the helicopter was "mechanically unreliable, aeronautically unsound. It is like lifting one's self by one's bootstraps, and shows no promise for the future."

The Army's experience suggests clearly the lack of wisdom in a system that at that time denied to a service authority to procure means necessary for its combat mobility. For mobility is the essential component of combat power, surprise is born of it and it is the talisman of success. Napoleon captured this in his ninth maxim: "The strength of an army, like power in mechanics, is estimated by multiplying the mass by the velocity . . ." And Clausewitz in his *Principles of War*, "It is the most important element of victory." Yet years went by and the Army was unable to procure helicopters adequate in numbers and types to its war needs.

Then came Korea. One of the impressive lessons from Korea was our lack of tactical mobility. At the outset, effective reconnaissance was entirely dependent upon land vehicles, vehicles that were frequently immobilized by terrain and weather. As Mr. Montross observes in his fine book, "It would appear that reliance on outdated forms of mechanization was the actual handicap of U.S. forces against an Asiatic peasant army." To offset this, the Marines did a first-class job with the limited number of helicopters that they brought to Korea. *Cavalry of the Sky* tells how it was done.

The form and substance of progress in any new field of development usually mirrors the personalities of the people who actively contribute to it. The helicopter program was no exception. An unusual and attractive feature of this book is the biographical sketches of the individuals who shared a part of the development program. They were an imaginative, hard-working lot. Fortunately, also, much of their work was recorded in pictures, particularly the work in Korea. The book includes a good number of them.

The concluding chapters explore the future of the helicopter in atomic warfare. Passing mention is made of the flying crane and the one-man helicopter, both of which have been developed during the past several years to meet expressed Army requirements. Surprisingly, no mention is made of the convertiplane and assault transport, both of which have been under study by the Army for several years. Offhand, they show greater promise of fruitful combat application than any air vehicle now on the drawing boards or flying.

All in all, *Cavalry of the Sky* is an excellent historical record of the development of the helicopter and the tactics for its employment. And it is well to know and understand this new form of mobility. For the helicopter and its close relations among the air vehicles will play a major combat role in the future. To read and retain much

of the significant material in this book is to gain a beachhead in the vast unknown of the nature of future combat.

The Great Deterrent

STRATEGY FOR THE WEST

By Sir John Slessor, Marshal of the Royal Air Force
William Morrow & Co., 1954
180 Pages; \$3.00

Reviewed by

BRIG. GEN. THOMAS R. PHILLIPS

In this short book, Sir John Slessor, formerly Chief of Staff of the Royal Air Force, expounds some radical ideas about the kind of struggle the Western powers are facing and about the nature of the armed forces required. He believes that air-atomic power is the Great Deterrent, in capitals, and should be the first charge on our resources. The deterrent effect of the air-atomic weapon is so great, he believes, that there is small chance that an atomic war will occur.

The Third World War, instead, is in progress right now, according to the author, in the form of minor aggressions, revolutions and subversion. Since this is the case, Slessor advocates adequate ground forces in readiness to put out communist-started fires. It is in regard to the type and organization of ground forces that Slessor's ideas are radical.

As for navies, it is quite obvious that Slessor believes they are approaching obsolescence. "If further economies must be found in defense expenditures," he writes, "it is impossible to resist the conclusion that they must and can be found in the sea service." He would concentrate upon defense against the submarine and mine as principal threats to sea communications.

As for carriers, he says "we must satisfy ourselves that the carrier has a reasonable chance of remaining afloat in the face of modern methods of attack." Slessor believes that guided bombs launched from ranges beyond the power of interception from ships' fighters may spell the end of great naval vessels, although he admits that it is not inconceivable that a defense may be found.

Amphibious operations also are downgraded by Slessor. "We should set our faces

against heavy expenditure," he writes, "on special craft and equipment designed for large-scale operations on the lines of the 'Overlord' landings, which will never again be practicable in the face of a first-class enemy."

Airborne operations of any size are too vulnerable, Slessor believes. They may be valuable in small wars and a few units of this type might be retained. This is also his position on amphibious operations.

Basically, Slessor believes that "we can no longer afford to superimpose the new atomic air strategy on top of the old conventional strategy of armies on the early twentieth-century continental scale with their great supporting air forces." In searching for a solution he turns, as most airmen do, to the air-atomic weapon. It is, however, "an unlimited instrument, and must be supplemented by forces of the type that can deal with what are, or should be, limited commitments by limited means." He fears, in other words, that the use of atomic weapons in small wars risks bringing on the major atomic war which must be avoided at all costs.

Slessor's case for the deterrent power of the air-atomic weapon is not overly convincing. He was in a city in Baluchistan which was wiped out, along with most of its inhabitants, in 55 seconds. "When people talk lightheartedly about that sort of thing on a widespread scale not being decisive," he writes, "I have to tell them with respect that they do not know what they are talking about. No country could survive a month of Quetta earthquakes on all its main centers of population and remain capable of organized resistance."

In Germany, for example, Slessor declares: "that what it took us five years to do last time we could do, and much more, in five days another time, and they could do nothing to prevent it." And there is no reason to doubt the ability of British and American air power to reach into the Soviet Union. Just as long as we keep that capacity, the threat of retribution will prevent a major war, in Slessor's strategy.

This is the heart of his strategy and possibly the most doubtful element. Secretary of State John Foster Dulles in a major policy speech in January said that "Local defenses must be reinforced by the further deterrent of massive retaliatory power," and that "The basic decision (made by the President and the National Security Council) was to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our choosing."

Shortly thereafter it was reported by the press that the Joint Chiefs of Staff had been authorized to include the use of atomic weapons in their war plans.

The point of this is that fear of Russian retaliation is not preventing us from planning to use atomic weapons. Similarly, it seems unlikely that fear of retribution from the United States will prevent Soviet planners from following the same path.

When the time came that the political

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

LINES FROM A NEW BOOK

. . . One can encourage the troops against England without talking to them; and nothing could be more absurd than to write them a pamphlet. It suggests distrust and intrigue, and the army needs none of it. Tell Barère, whose rhetoric and sophistry ill accord with his big reputation, not to do any more writing of this kind. He is always thinking the mob must be roused to excitement: on the contrary, the right way is to guide them without their knowing it. . . .

9 Sept. 1804

Napoleon's Letters

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

A Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a current check list of the most important, useful and potentially popular books. Full reviews of some of these books will appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service. See page 56 for order coupon and a complete listing of Selected Books for Military Readers.

ATLAS OF MEN. By William H. Sheldon with the collaboration of C. Wesley Dupertuis and Eugene McDermott. Harper & Brothers, 1954. 357 Pages; Illustrated; Index; \$10.00. A guide and handbook on somatotyping for those concerned with the problems of human physique, including physicians, geneticists, psychologists, physical educators, actuaries, nutritionists and human biologists. The first comprehensive review of age, height and weight standards since 1912.

THE COMPLEAT STRATEGYST. By J. D. Williams. McGraw-Hill Book Company, 1954. 234 Pages; Illustrated; Index; \$4.75. A primer on Game Theory for home study that enables the reader to formulate and solve simple problems.

DESPERATE SCENERY. By Elliot Paul. Random House, 1954. 302 Pages; \$3.75. The author of *The Last Time I Saw Paris*, *The Life and Death of a Spanish Town*, *Linden on the Saugus Branch*, and many other books writes of Pocatello, Idaho, and the surrounding country with his usual entertaining and roistering style.

DON'T TREAD ON ME. By Capt. Walter Karig with Capt. Horace V. Bird. Rinehart & Company, Inc., 1954. 442 Pages; \$4.00. A novel, rather than fictionalized biography. Captain Karig, the author of the *Battle Report* series and *Zotz*, uses an exciting historical era for the background of one of his skillfully contrived novels.

THE DRIVE TOWARD REASON: In the Service of a Free People. By Lyman Bryson. Harper & Brothers, 1954. 148 Pages; Index; \$2.50. Examining "our present effort to realize the oldest of American dreams, the betterment of ourselves, and to look for those favorable factors that may help us along." An inspirational book for those who are tired of listening to the prophets of doom.

THE EDGE OF THE SWORD. By Captain Anthony Farrar-Hockley. Frederick Muller, Ltd., 1954. 275 Pages; \$2.75. The Adjutant of the 1st Battalion of the famous Gloucestershire Regiment writes of that unit's glorious stand at the eastern crossing of the Imjin River, and continues with an account of the author's period as a prisoner of war. Captain Hockley's literary abilities are a bit above those of most of the American writers of similar books.

A FABLE. By William Faulkner. Random House. 437 Pages; \$4.75. William Faulkner's latest and probably crowning achievement. The scene is France in 1918 and the AEF figures prominently.

FAR EASTERN GOVERNMENTS AND POLITICS: China and Japan. By Paul M. A. Linebarger, Djang Chu and Ardath W. Burks. D. Van Nostrand Company, Inc., 1954. 630 Pages; Index; \$6.50. A college-level text by three recognized experts. Designed also for reading by interested general readers. Complete and accurate and with a minimum of "special language."

GUIDE TO COMMUNITY ACTION: A Sourcebook for Citizen Volunteers. By Mark S. Matthews. Harper & Brothers, 1954. 434 Pages; Index; \$4.00. In these days of PTA, civic associations, volunteer fire departments, youth councils, brotherhood organizations, "little leagues," and many other community and wider groups that depend on volunteers for operation, a handbook of this type was inevitable. Here is the guide for the leaders in community volunteer efforts, complete with information from initial organization, through financing and public relations, down to "Sources of Aid." Readable and complete.

AN INNOCENT ON EVEREST. By Ralph Izzard. E. P. Dutton & Co., Inc., 1954. 319 Pages; \$3.75. A true adventure story by an English newspaperman who was assigned to try to beat the official stories in the conquest of Everest. Exciting but not particularly important.

THE INTELLIGENT INVESTOR. By Benjamin Graham. Harper & Brothers, 1954. 272 Pages; Charts; Index; \$3.50. A revised version of a book that in its earlier edition received wide acclaim from many readers in the financial world. Realistic, and can be understood by the layman.

IWO JIMA: Amphibious Epic. By Lt. Col. Whitman S. Bartley. Historical Branch, U.S. Marine Corps, 1954. 253 Pages; Illustrated; Index; \$4.75. Another in the beautifully-done series of official Marine Corps histories. To be reviewed in the JOURNAL at length.

LIFE PLANNING FOR COLLEGE STUDENTS. By William J. Reilly. Harper & Brothers, 1954. 173 Pages; Index; \$2.50. Designed to help the college student toward a wise choice of career. It purports to show how to plan "scientifically" toward achievement of life goals—if a short book can be used as a scientific tool toward the attainment of such an abstract goal.

MAKING THE MOST OF YOUR FOOD FREEZER. By Marie Armstrong Essipoff. Rinehart & Company, Inc., 1954. 371 Pages; Illustrated; Index; \$3.95. A revised and enlarged edition of one of the better books on the subject.

ME AND MY RUSSIAN WIFE. By Eddy Gilmore. Doubleday & Company, 1954. 313 Pages; \$3.75. Mostly personal reminiscences by an American correspondent who spent twelve years behind the Iron Curtain and was finally able to bring his Russian wife and his two children out of the country after the death of Stalin. The author admits to no profundity but the reader will learn what it is like to live in Russia even with the preferred status of a foreigner.

MILITARY ORGANIZATION AND SOCIETY. By Stanislaw Andrejewski. Grove Press. 195 Pages; Index; \$4.50. A Polish author investigates the influence of military organization on social life.

MY LIFE IN THE MAINE WOODS: A Game Warden's Wife in the Allagash Coun-

try. By Annette Jackson. W. W. Norton & Co., 1954. 236 Pages; Illustrated; \$3.50. A game warden's wife tells of life in the deep forest, complete with deer, bear, snow and four children. A homely unpretentious story of life far removed from the city.

NOW I CAN TELL. By Quentin K. Y. Huang. Morehouse-Gorham Co., 1954. 222 Pages; \$3.50. A Chinese bishop's own story of imprisonment by the Chinese Communists. An intelligent and astonishingly objective description of life in the new China.

PUBLICITY IN ACTION. By Herbert M. Baus. Harper & Brothers, 1954. 335 Pages; Index; \$4.50. Designed for business enterprises, public agencies, service organizations, volunteer groups and charitable agencies, this book describes publicity techniques in layman's terms. Offers a down-to-earth approach.

RIFLE SQUAD AND PLATOON IN ATTACK—Illustrated. By Major Frank F. Rathbun; Illustrated by Charles G. Rebeles. The Military Service Publishing Co., 1954. 96 Pages; Index; \$2.00. A graphic presentation of basic tactics by a member of the staff of The Infantry School. The text is readable and the illustrations, though hardly artistic, are clear and convincing.

SHIPS, MACHINERY AND MOSS-BACKS: The Autobiography of a Naval Engineer. By Harold G. Bowen, Vice Admiral, USN (ret.) Princeton University Press, 1954. 397 Pages; Charts; Index; \$6.00. Admiral Bowen's forty-six years in the Navy ended in June 1947; this period covered many engineering advances. Admiral Leahy says in his Foreword: "We have had in the Navy during my time many successful engineering officers, but insofar as I know, no other than Vice Admiral Bowen made so many improvements . . ." Written in salty, no-punches-pulled style.

THE STORY OF OUR CIVILIZATION. By Philip Lee Ralph. E. P. Dutton & Co., Inc., 1954. 319 Pages; Illustrated; Index; \$3.75. A history of the last 10,000 years of Western man; a masterpiece of compression.

"STROBE"—THE LIVELY LIGHT. By Howard Luray. Camera Craft Publishing Co., 1954. 144 Pages; Illustrated; Index; \$4.00. A second edition of a standard text on Strobe photography techniques.

TARAWA: The Story of a Battle. By Robert Sherrod. Duell, Sloan & Pearce-Little, Brown, 1954. 196 Pages; \$3.50. The re-issue, on the tenth anniversary of the original, of one of the most stirring volumes of reportage to come out of World War II. Twelve pages of statements by high-ranking participants in the original battle have been added.

WIND TUNNEL TESTING. By Alan Pope. John Wiley & Sons, Inc., 1954. 511 Pages; Illustrated; Index; \$8.50. A new edition of a standard work first produced in 1947. Well illustrated.

decision had to be made to use atomic weapons, the political decision might be against the military planners. In that case the nation which has depended upon the air-atomic weapon as the greatest force in its arsenal, might find itself hopelessly outclassed by its failure to maintain a sufficient conventional force.

The deterrent theory is a risky one on which to chance national survival. Slessor thinks that small wars in the future will be fought with conventional light forces. This reviewer doubts that in any future small war our military commanders will be deprived of the power of atomic weapons.

Although Slessor believes that new weapons have added greatly to defensive power on land, especially against tanks, he envisages a core, to stem the first rush of invasion in Europe, of "highly mobile armored divisions with powerful self-propelled artillery, covered and supported by tactical air forces." The first-line forces would be supplemented by some infantry divisions for the mobile holding role, but mainly by local semi-static home or territorial guard forces on an inexpensive model. It may be doubted that many soldiers will agree with this idea of Airman Slessor.

Strategy for the West is a thought-provoking book. Very few will agree with all the ideas, but almost everyone will agree with some. In a time when weapons development has been so revolutionary as the present, thoughtful books on the effects of new weapons on tactics, strategy and organization are just as important as millions of dollars spent in research. It is historically true that armies have shown themselves much more ready to adopt new weapons than they have new ideas. Weapons determine tactics almost entirely, and influence strategy. Tactics and strategy are not material things like weapons—they are ideas. That is why a book like this, with which few will agree, is of very great value.

Gallant Gloucesters

THE EDGE OF THE SWORD

By Captain Anthony Farrar-Hockley
Frederick Muller, Ltd., 1954
275 Pages; \$2.75

Reviewed by

MAJ. GEN. J. C. FRY

The Edge of the Sword is a calm, dispassionate, and obviously authentic account of the British author's experiences in battle and as a prisoner in North Korea. The title serves to symbolize the Infantry as the primary fighting instrument of ground warfare. The tale begins with the epic battle staged by the famous Gloucestershire Regiment on Castle Hill, where they stood squarely astride the avenue the Chinese Army sought to follow toward Seoul. In the opening stages of the battle, the Gloucesters were led to believe that they would be reinforced or relieved. However, as the violence of the conflict spread, the high command indicated that this was impossible.

The colonel of the Regiment received orders to "hold at all costs." Every military student has used that term, but few have appreciation of what it means. An order of such finality is equivalent to a death sentence for many of the recipients. The picture sketched of the colonel lighting his pipe with shaking hands, his face paling from knowledge of what the order means, is one to be savored by officers who may endure the responsibility for units in violent combat.

The outcome of the defense by the gallant Gloucesters is now history. No other unit of all those that made up the United Nations forces in Korea can boast of greater demonstrated valor. Every thinking man who has worn the uniform of his country should be thrilled by this detailed account of grim conflict. To those who died and those who survived, the free world owes an undying debt of gratitude.

It was inevitable that by sheer force of numbers, this small British unit would eventually be submerged. The picture the author draws of treatment meted out to the prisoners should be required reading for all members of the free world whose duties in any way involve the shaping of policy toward nations behind the Iron Curtain. Within these pages the character of our enemy stands out clearly—a vile, deceitful, calloused, cruel, ignorant, and savage mob, entangled in their own web of lies, treachery, and deceit. The description of unimaginable tortures inflicted upon helpless prisoners forms a pattern that quite obviously reflects the policy that the end justifies any means.

Entwined within this tale of valor by the Gloucesters and the hideous behavior of their captors are a multitude of lessons that thinking men should evaluate. The picture painted of the hordes of Asians describes an ill-fed, ill-equipped, poorly trained, and ruthlessly controlled army. Although frightening at first thought, the Chinese lacked the essentials for gaining final victory over the West. One thing they most assuredly lack is the full support of their own people. One can feel this in the repeated indications that both the Chinese and Koreans are basically more humane than the treatment given our prisoners would seem to indicate. The evidence points to the fact that Communism has been embraced in desperation rather than through free choice. The full meaning of this should be assayed by all of us.

The tale includes repeated efforts to escape and the tortures endured when recaptured. Through this pattern of death, sickness, hope and desperation, men's characters stand starkly naked. Physical welfare gains strength from peace of mind and confidence that God guards the welfare of the free world. The author tells repeatedly of his trust and belief in God and cites instances where his prayers were answered, the culmination being his passing under a wooden arch marked "Welcome to Freedom."

"Follow Me"

RIFLE SQUAD AND PLATOON IN ATTACK

By Major F. F. Rathbun
Illustrated by Charles G. Rebeles
The Military Service Publishing Co., 1954
96 Pages; Index; \$2.00

Reviewed by

CAPTAIN ROBERT L. FAIR

Major Rathbun has discovered the formula for writing a tactics textbook from which the aspiring young leader will find it a cinch to learn.

Adapting his material from FM 7-10 and current Infantry School pamphlets, author Rathbun presents the basic fundamentals of squad and platoon attack doctrine in such a logical manner that it should receive the commendations of all leaders from the Assistant Squad Leader to the Division Commander. In the foreword, Major General J. C. Fry, the Army's Career Management Chief, states, "The small-unit commander who masters the principles contained herein will never feel inadequate on the battlefield."

That Rathbun's technique is relatively simple is a tribute to his skill. His secret?—present the lesson by the use of graphic illustrations and use only a few well-chosen words. Consequently, the book's ninety-five pages contain no less than seventy-nine excellent illustrations.

Rifle Squad and Platoon in Attack begins with a brief discussion of the attack in general, including fire superiority, maneuvering force, and the principles of find 'em and fix 'em, fight 'em and finish 'em. All of this discussion is written in a clear-cut, down-to-earth style easily understandable even by the novice.

Artist Charles G. Rebeles then lends his talent by graphically presenting the organization of the rifle and weapons squads and the rifle platoon. These drawings are followed by realistic pictures portraying various squad and platoon formations.

The preliminaries out of the way, the author then takes us through the step-by-step movement of the rifle platoon in an attack. No phase of the attack is overlooked. After the company attack order is issued, the leader is led through a detailed description of troop leading. Our platoon leader, his preparations for the operation completed, issues his attack order. Here, the author thoughtfully presents the reader with both an outline of the attack order and a platoon leader's check list for planning the attack.

The platoon is now ready to move. Major Rathbun describes the action of the leaders and their units in the assembly area, the movement to the attack position, crossing the line of departure and moving toward the assault position. After arriving in the assault position the leader learns about shifting his supporting fire and making the assault. Naturally, the leader and his platoon take the objective and study reorganization and consolidation. The platoon leader receives another valuable check list, this time for the attack.

The author takes the rifle and weapons squads through the same process, also providing check lists for the squad leaders.

The text ends with the presentation of a sample platoon leader's and squad leader's attack order.

By maintaining the same thread of thought throughout the presentation, continuity is obtained seldom found in such a work.

While it is true that all the doctrine presented may be found in field manuals, it is much easier to learn small unit attack doctrine in the "Rathbun manner."

Rifle Squad and Platoon in Attack is specifically designed for the junior leader since it is a simple and straightforward insight into the details and ramifications which go into the motto of the Infantry—"Follow Me."

**FAR EASTERN GOVERNMENTS AND POLITICS:
CHINA AND JAPAN**

By Paul M. A. Lineberger, Djang Chu and
Ardoth W. Burks
D. Van Nostrand Company, Inc., 1954
630 Pages; \$6.50

Reviewed by
COL. C. A. H. THOMSON

This study in comparative government, offered partly as an introduction to the Far Eastern tradition of the government of men, is more than an ordinary textbook in conception and execution. Its long historical perspective assures that it will continue to be useful to the reader, no matter what emerges out of the immediate turmoil of Far Eastern politics.

The book is almost evenly divided between China and Japan, with slight preponderance to the latter. The treatment is in many parts interwoven as the authors indicate relationships between the two governments and with the other Asian and Western powers.

The treatment of modern China gives some insight into developments which led to Mao's victory, and offers some basis for estimating the future. The outlook for the Nationalist Government is dim: although a forlorn hope, it is still alive, "a long-shot in the perennial gamble of Far Eastern history" (p. 145), but resting on a base no worse than the Chinese Communists enjoyed in 1935. The record of governing Formosa is good. The prospects for recapture of the mainland depend—if not on successful exploitation of global war—on possession of non-Communist revolutionary ideology, the power of the overseas Chinese community, and the revolutionary ferment of China itself. There is no easy road back; guerrilla warfare, increasing liberation of mainland areas from Communist control, organization of passive resistance, the development and use of a dynamic revolutionary situation, face the Nationalists.

Mao's victory was founded on shrewd, hard-headed exploitation of the lessons learned and experience gained in fighting the Kuomintang and the Japanese. The Communists learned not to sacrifice real power for the appearances of it. They

built a solemn, self-assured and powerful regime, led by a realist more Western in his thought than Chiang. Yet it is not a regime which would sacrifice power to Marxist or Leninist ideology. This explains the inclusion within their coalition of little bourgeois and capitalist elements, thought necessary during the first stage of revolution. Whether the authors are right in concluding that the Communists have come to "final" power, only time will tell.

The authors offer little hope either for a Titoist shift or for an overturn. They suggest no lines on which the Communist regime might founder, and do not compare the possibilities of weakness and defeat which face this regime with those which emerged from the Kuomintang effort to teach democracy by tutelage.

The task of politics in China is to find and extend "shareable belief." This is the task of politics everywhere, but in China it is especially difficult, since rifts go so deep and the basic question of "Who are we Chinese, and where are we going?" is so far from common answer.

The part on Japan is equally valuable, if not so sprightly in style. A modest estimate of the impact of United States occupation is given: the Occupation affected the deep roots of Japanese society very little. The long perspective of Japanese political development suggests that no one should dare predict the manner in which the Japanese will absorb and reshape the influences of "democratization."

Political Interference

V-2

By Walter Dornberger. Translated by James
Clough and Geoffrey Halliday
The Viking Press, 1954
281 Pages; Illustrated; Maps; Index; \$5.00

Reviewed by
MAJ. GEN. H. W. BLAKELEY

Major General Dornberger, former commander of the Peenemunde Rocket Research Institute, tells in this book the story of the development in Germany of the liquid-fuel rocket between 1930 and 1945. The rocket, he says, is "an invention which is certain to exercise a decisive influence on the future of mankind." He is not, he makes it clear, merely considering the rocket as a weapon: "We have led our generation to the threshold of space—the road to the stars is now open."

From the military viewpoint, however, the current value of General Dornberger's book lies in the fact that he gives an authentic account, valuable as background, of the development of the weapon which he regards as the ideal artillery projectile possessing the characteristics of long range and accuracy, and cheaper to manufacture and simpler to service than an airplane.

General Eisenhower has said that "it seems likely, that if the German had succeeded in perfecting and using these new weapons [the V-1 and V-2 rockets] six months earlier than he did, our invasion of Europe would have proved exceedingly

difficult, perhaps impossible." No one who saw the great assemblage of troops, ships, and landing craft in the Portsmouth-Southampton area and in the vicinity of Plymouth, and who also saw the damage done to London and Antwerp by the rockets, could possibly disagree with this opinion. It is clear from General Dornberger's account that the vital six months or more of delay was due not to technical difficulties but to political indifference and interference.

The Army's difficulties with Himmler, the head of the thoroughly political SS, are of particular interest. He told Dornberger that once Hitler had decided to give the V-2 project his support the work ceased to be the concern of the Army Weapons Department, or indeed of the Army at all, and became the concern of the German people. "I am here," he announced on his first visit to Peenemunde, "to protect you against sabotage and treason."

Later, because of SS pressure, the station commander at Peenemunde was relieved without warning from his command. Investigation by Dornberger developed the fact that the basis of the relief was unfounded charges contained in a letter from Himmler.

It may well be an understatement to say that political interference of this type contributed to the defeat of Germany in World War II.

Finland's Giant

THE MEMOIRS OF MARSHAL MANNERHEIM

Translated by Count Eric Lowenhaupt
E. P. Dutton & Co., 1954
540 Pages; Illustrated; Maps; Index; \$6.75

Reviewed by
MAJ. GEN. H. W. BLAKELEY

It could be argued, and admittedly the debate might be hot, that the three outstanding individuals of the first half of the twentieth century started their careers as professional soldiers. Each, under very different circumstances, eventually became the head of the government of his country. The stories of Churchill and Eisenhower are well known; that of Finland's Mannerheim is, in America at least, so little known that it may seem a little absurd to group him with the other two.

S. L. A. Marshall recently referred to Mannerheim as "one of the earth's giants." Only the fact that Mannerheim's country was a little one buffeted between Russia and Germany will obscure his place in history; the same fact emphasizes his stature as a leader. Of Swedish-Finnish ancestry, he was graduated from Russia's Nikolaevski Cavalry School in 1889 after a previous start, at the age of fifteen, in the Finnish Corps of Cadets School had ended abruptly. His boyish boast that he would enter the Russian Cavalry School (he didn't even speak Russian) and become an officer of the Chevalier Guards, the top regiment of the Czar's household troops, was not taken very seriously, but he did just that. In his thirty years in the Imperial Russian Army

he rose to the rank of lieutenant general and had extensive combat experience in the Russo-Japanese war and against the Germans and Austrians in World War I.

The Russian revolution terminated this phase of his military career, but he almost immediately became the Commander-in-Chief of Finland's armed forces in their war of liberation, and later Regent. In 1939, when Russia attacked Finland, Mannerheim was again given the Supreme Command, and later became President of the republic.

Mannerheim was an outstanding horseman and a pupil and friend of James Fillis, an equestrian well known to officers of all armies in the days when the horse was the principal factor in mobility. The story of Mannerheim's two-year ride of nearly a thousand miles through the whole of central Asia from Russian Turkestan nearly to Peking is told with such simplicity that the hazards of freezing weather on wind-swept mountains, of the monotonous crossing of the Gobi Desert, and of unfriendly treatment on the borders of Tibet emphasize more the character of the writer than the dangers involved. At seventy, incidentally, his idea of a vacation was to go to India on a tiger-hunting expedition.

His memoirs were written in 1950, and he died, at the age of eighty-three, in January of 1951. His comments on the Russians and on military tactics and weapons are, of course, dated, but not without value. For example, he says that it is "typically Russian" to minimize the importance of a fact because for some reason it does not accord with preconceived ideas—certainly a dangerous characteristic in war. He says that in the Russian high command, particularly in the "winter war" of 1939-40, there were "signs of a kind of inertia": "This displayed itself in the formalism and simplicity of the operative plan, which excluded maneuvering and was obstinately pursued to victory or defeat. The Russians based their art of war on weight of material, and were clumsy, ruthless, and extravagant."

A Russian innovation which seems to have possibilities in the field of personnel carriers was armored sleighs drawn by tanks "for bringing up infantry."

Marshal Mannerheim believed that "nothing except extensive maneuvers can prepare the troops for the many demands of war, and nothing else can bring officers and men so close." Current military thought of course regards maneuvers as an essential element in training but tends to the idea that there is a time limit beyond which training value, for smaller units at least, drops rapidly. The difference here may really depend on the Marshal's concept of "extensive maneuvers."

This book etches a picture of a man of great character and varied abilities and of a small country which fought hard for its freedom. It also highlights the amazing changes in all matters military in less than half a century.

AUGUST 1954



Pass In Review

It isn't often we devote space to a discussion of fiction titles. This month, however, saw the publication of a novel that we consider well worthwhile. *The Fall of a Titan* (\$4.50) was written by Igor Gouzenko, the cipher clerk in the Soviet Embassy in Canada whose break with the Reds led to the roundup of the Canadian spy ring in 1945. His story is laid in Russia during the time of the great purges of 1930. The book contains a wealth of interesting and apparently factual detail about Soviet control of population, labor camps, production, and the like. Certainly the reader gets a powerful indoctrination in the creeping paralysis of individual thought and action which encompasses all those who must live under the shadow of the Hammer and Sickle. Books like this and Admiral Stevens' *Russian Assignment* contribute to a better understanding of the menace of communism on the personal level. Gouzenko's book will provide several evenings of fine entertainment as well.

Having heard for years of that colorful British hero, Chinese Gordon, I was quite pleased to see a copy of Lawrence and Elizabeth Hanson's recent biography of him. *Chinese Gordon* (\$4.00) substantiates fully all I had ever heard about this bizarre fighter. He certainly is an intriguing personality and as a leader of troops he has had few peers.

We're always happy to see our "boys" get ahead. Our boy in this instance is Paul Linebarger, contributing author to our JOURNAL and author of our Combat Forces Press' best-selling title *Psychological Warfare* (now out of print but a new edition is in the mill). Linebarger has just produced, through another publisher, a scholarly work of current interest entitled *Far Eastern Governments and Politics* (\$6.50). If this new book is half as successful as our own *Psychological Warfare* (\$25.00 for a copy in second-hand book stores now), his current publisher will be happy indeed.

As a faithful reader of every volume published in the official World War II Army history series and the reviewer of four or five volumes, I have never failed to be impressed by the high quality of the workmanship that has marked all but one or two of the books. There is still another officially sponsored historical effort that has not received as much attention as it should, the current series being published by the Marine Corps Historical Division. Some thirteen volumes have already been published, of which *Iwo Jima* (\$4.75) is the latest. These Marine historical accounts are understandably smaller volumes than those of the army but mechanically are every bit as good. While I have not read all thirteen of the Marine works, I have read over half of them and find them to be top notch in almost every respect. In comparison, I would have to say without malice, that the Marine histories are less prone to discuss and analyze mistakes than has been the case in the Army's histories. But even so, they provide hard hitting, well mapped studies of the campaigns involved. Incidentally, you can get them all through our Combat Forces Book Service—see the book list in the back of the JOURNAL.

There are so many Civil War titles published that we have a hard time keeping up with them all and rarely mention those that are not straight history. However, over a period of years there have been some excellent fictionalized biographies of Civil War leaders and a new one caught my eye recently and reminded me that it might not be a bad idea to mention it. The title is *Farewell My General* (\$3.50) and is written by Shirley Seifert, a Civil War fan and author of long standing. This fine novel is based on the life of Jeb Stuart and rates as high entertainment. While this is essentially a historical novel, Shirley Seifert knows her Civil War well enough to keep her work factually correct and consequently does not irritate the true Civil War fan who is by his very nature persnickety, to say the least.

With the fighting in Asia so much in our thoughts these days, I was particularly interested in a new book written by a British Army major about the war in Malaya. *Jungle Green* (\$4.00) describes the dirty jungle fighting at the platoon level and gives an exciting picture of the prolonged guerrilla warfare which has been going on for so long.

R.F.C.

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